



PORTLAND HARBOR RI/FS

**TECHNICAL MEMORANDUM**

FINALIZATION OF ROUND 1 CHLORINATED PESTICIDE DATA

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## Introduction

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Columbia Analytical Services (CAS) conducted the Round 1 chlorinated pesticide analyses of tissue samples using U.S. Environmental Protection Agency (EPA) Method 8081A, as required by the EPA-approved Round 1 quality assurance project plan (QAPP). Analysis by EPA Method 8081A, a standard gas chromatograph (GC) technique for the analysis of chlorinated pesticides in environmental samples, employs an electron capture detector (ECD). The ECD is sensitive to chlorinated compounds (e.g., chlorinated pesticides, polychlorinated biphenyls) and allows for the identification and quantitation of target compounds at method reporting limits (MRLs) in the low  $\mu\text{g/kg}$  range.

The Round 1 chlorinated pesticide data were validated by the Lower Willamette Group's (LWG) subcontractor, Laboratory Data Consultants Inc. (LDC), as required in the Round 1 QAPP. Data qualifiers were assigned to selected results based on the laboratory quality control results. The precision and accuracy of the chlorinated pesticide results met the data quality objectives specified in the QAPP and the GC/ECD chlorinated pesticide data were deemed acceptable, as qualified.

Polychlorinated biphenyls (PCBs) are a known interferent in the chlorinated pesticide analysis by GC/ECD (EPA Method 8081A). In the laboratory case narratives for the Round 1 data packages, CAS noted matrix interferences for some of the samples. When reviewing the chromatograms for the chlorinated pesticide analysis, LWG and EPA project chemists noted evidence of potential interference in the chlorinated pesticide analysis from the presence of PCBs in selected samples. EPA requested reanalysis of selected Round 1 tissue samples because of possible false positive or biased high chlorinated pesticide results due to the potential interference of PCBs in the chlorinated pesticide analysis. Additional review of the GC/ECD chromatograms for chlorinated pesticides was conducted by LWG to assess the degree of PCB interference for the chlorinated pesticide analysis.

Under LWG's direction, CAS reanalyzed selected Round 1 samples by gas chromatography/mass spectrometry (GC/MS) using a mass spectrometer equipped with an ion trap (EPA Method 8270C), which increased the sensitivity of the instrument. This methodology is not typically used for tissue analysis; however, the method was developed by CAS for the Round 1 tissue samples. Using this GC/MS ion trap method allowed separation of the chlorinated pesticide target parameters from the PCB interferences while attaining detection limits below those commonly achieved by standard GC/MS methodology.

The purpose of this technical memorandum is to provide LWG's recommendations for selection of chlorinated pesticide results reported in the project database. This memorandum summarizes the data quality of the chlorinated pesticide results analyzed by GC/MS ion trap, the data qualifiers assigned to the results for both methods, and the criteria for selection of the final result.



## **Round 1 Analysis for Chlorinated Pesticides**

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The results of the chlorinated pesticide analysis conducted by CAS for the Round 1 tissue samples were reported from March through May of 2003. A total of 129 tissue samples were analyzed for chlorinated pesticides by GC/ECD for Round 1.

### **GC/ECD ANALYSIS**

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The Round 1 QAPP stipulated that chlorinated pesticide analyses in tissue samples be conducted using EPA Method 8081A. Prior to extraction of the tissue samples, CAS performed a screening level extraction and analysis to determine the appropriate mass of sample to use for extraction to ensure that the tissue sample extracts did not require excessive dilution. Based on the screening results, a smaller mass of tissue than required by the method and laboratory standard operating procedure (SOP) was extracted for selected samples. The tissue sample extracts were subjected to gel permeation chromatography (GPC) and Florisil cleanup prior to instrumental analysis by GC/ECD. The analyses were conducted in accordance with the requirements in the Round 1 QAPP without additional method modifications.

### **GC/MS ION TRAP REANALYSIS**

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CAS conducted the GC/MS analysis by EPA Method 8270C in full-scan mode using a GC/MS equipped with an ion trap. The target parameter list for the EPA Method 8270C reanalysis was the same as the list for Method 8081A, excluding alpha-endosulfan and alpha-chlordane (which were not recovered by MS) and the multi-component pesticide toxaphene. CAS used 10 grams of tissue sample for extraction. The extracts were subjected to GPC and Florisil cleanups to remove interferences and non-target compounds. Five of the smallmouth bass sample extracts were subjected to acid cleanup because of matrix interference that was not resolved by GPC and Florisil cleanup.

Prior to conducting the analysis, CAS performed a method detection limit (MDL) study in a tissue matrix for the chlorinated pesticide target parameters using the GC/MS ion trap instrument. The MDLs were typically between 5-10 µg/kg for the target analytes. The method reporting limit (MRL) for the target parameters was 25 µg/kg for all parameters, except oxychlordane, trans-nonachlor, dieldrin, and endrin, which had MRLs of 50 µg/kg.

Samples selected for analysis by GC/MS with ion trap included all samples with a reported concentration of 100 µg/kg or greater for any one of the DDT isomers and metabolites, as measured by GC/ECD. A total of 45 samples were selected on this basis. Additional samples with high PCB concentrations relative to the DDT isomers and metabolites were selected for analysis. These samples were selected by calculating the ratio of total PCBs to DDT isomers and metabolites. Samples with a PCB/DDT ratio of 10 or higher and a concentration of DDT isomers and metabolites



of 10 to 100 µg/kg were selected for analysis. Eight additional samples were selected for analysis based on the PCB/DDT isomer and metabolite ratio. Sample LWG01FZ0609TSBCWBC20 was added to the sample list because the concentration of 4,4'-DDE was sufficiently high (95 µg/kg) and because no black crappie sample was initially included in the sample list. Sample LWG0108R001TSSPWBC00 was analyzed in duplicate, resulting in a total of 55 samples selected for reanalysis. The GC/MS ion trap results are included in Table A1 (Attachment A) in the columns labeled *SW8270C*.

## Data Evaluation

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### VALIDATION OF GC/MS ION TRAP DATA

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The GC/MS ion trap data were validated for the LWG by Laboratory Data Consultants Inc. (LDC), the data validation subcontractor that validated the previously generated Round 1 data. The validation of the GC/MS ion trap data was conducted in accordance with the data validation procedure outlined in the Round 1 QAPP and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Review* (U.S. EPA 1999), with modifications to accommodate the analysis of chlorinated pesticide compounds by GC/MS. Selected results and reporting limits were qualified as estimated (assigned J or UJ qualifiers) during data validation because of exceedance of the control limits for continuing calibration (Endrin) and the internal standard area (multiple analytes in one peamouth sample). Qualifier assignments are summarized in Table 1. None of the GC/MS results were rejected during LDC's validation process. The GC/MS ion trap data were deemed acceptable, as qualified, and were considered valid for use for the project.

### QUALIFICATION OF GC/ECD DATA

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All of the organochlorine pesticide data were validated by LDC under LWG's direction in 2003 in accordance with requirements provided in the QAPP. At EPA's request, LWG completed an additional review of the GC/ECD chromatograms for pesticides in all of the tissue samples. Assignment of data qualifiers was based on the levels of background signal fluctuations or interferences relative to the analyte signal. The degree of interference was sample-specific and was attributed to the presence of PCBs in the samples or to components of the tissue matrix, or both. The following qualifiers were applied to the data:

**N qualifier**— The analyte is tentatively identified. The associated result may be a false positive. A similar response was obtained on both the primary column and the confirmation column. Non-target peaks of similar or greater magnitude were also present. The identification was not judged to be definitive.

**NJ qualifier**— The analyte is tentatively identified and the concentration is an estimate. The associated result is likely to be a false positive. Peaks were present on



both columns, but the difference in response was greater than a relative percent difference (RPD) of 40. The identification was not definitive.

**J qualifier**—The associated result is an estimate. The J qualifier was applied when the peaks on both columns were clearly greater than the background signal. In addition, the background signal may have contributed to the peak and resulted in a positive bias, or the results on the two columns did not agree within 40 RPD.

**U qualifier**—The analyte was not detected. Results were restated as undetected in several cases when the peaks could not be distinguished from background signal. A J qualifier was additionally applied if the reporting limit was an estimate.

In addition, the value reported for undetected pesticides was changed from the MDL to the MRL. MDLs are determined using a clean sample matrix. The background signal in all of the Round 1 tissue samples was too high to support the use of the MDL as a reporting limit for chlorinated pesticides. The GC/ECD results and data validation qualifiers for the Round 1 tissue samples are included in Tables A1 and A2.

#### **COMPARABILITY OF GC/ECD AND GC/MS ION TRAP RESULTS**

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Chlorinated pesticide analysis by GC/ECD is more sensitive than analysis by GC/MS. For GC/ECD analysis of the Round 1 tissue samples, the MDLs for the pesticide compounds were in the 0.06-0.2 µg/kg range, and the MRLs were typically in the 1-4 µg/kg range for most target parameters. The MDLs and MRLs varied based on the mass of sample extracted for analysis. Analysis of chlorinated pesticides by GC/MS is more selective because PCB interference can be resolved by the MS detector and significant matrix interference was not present for most Round 1 tissue samples. (NOTE: Significant matrix interference encountered for five of the Round 1 smallmouth bass samples is discussed further below.) However, MDLs by GC/MS are higher, in the 5-10 µg/kg range for most target compounds, and MRLs are 25 µg/kg for most analytes and 50 µg/kg for selected analytes. Based on the inter-method and inter-sample variability inherent in the reanalysis, variability between the GC/ECD and GC/MS results was expected. Beyond differences in the data that resulted from the inherent differences and strengths of the two methods (i.e., the greater specificity of the GC/MS-ion trap method and the greater sensitivity of the GC/ECD method), the GC/ECD and GC/MS data were comparable for most analytes. The exceptions are identified below.

The comparability of the results by both methods was assessed by calculating the RPD of the results by both methods (see Table A1). A control limit of 50 RPD is recommended by the Puget Sound Estuary Program and the Puget Sound Ambient Monitoring Program (PSEP 1997, Appendix C) for analytical precision for organic analyses. This control limit applies to matrix spike duplicate samples analyzed by the same method in the same sample batch and is not intended to account for inter-



method variability. Because there is no standard control limit for inter-method comparison of results, an RPD of 50 was established as a conservative target control limit for detected results greater than 5 times the reporting limit by both methods. Greater variability is expected for results within 5-10 times the reporting limit (i.e., the MDL for GC/MS-ion trap results and the MRL for GC/ECD results) because of the increased variability of results near the reporting limit. If the RPD exceeds 50 and either of the associated results is qualified N or NJ, which indicates the associated result may be a false positive, further evaluation of the RPD between the results was not performed.

Detected results greater than 5 times the reporting limit that were not tentatively identified (i.e., were not assigned an N qualifier) were reported for 2,4'- and 4,4'-DDD, DDE, and DDT. The results for the remaining compounds were consistently undetected by one or both methods, detected at concentrations less than 5 times the reporting limit, or qualified as tentatively identified (assigned an N qualifier), and further evaluation of the comparability was not required. Selection criteria for reporting of the chlorinated pesticide results for these compounds are provided below.

The comparability of 2,4'- and 4,4'-DDD, DDE, and DDT, when detected, varied by compound. For 2,4'-DDE and 2,4'-DDD, all but six pairs of results were undetected by one or both methods or were qualified as tentatively identified (N or NJ qualifiers applied) (see Table A1). The single detected result by both methods for 2,4'-DDE, reported without an N qualifier, was comparable, as indicated by the low RPD (RPD = 8). For 2,4'-DDD, there were five results detected by both methods, reported without an N qualifier (Table A1). Three of the five detected results had RPDs less than 50, indicating acceptable precision between methods. One pair of detected results had an RPD of 70, which exceeded the target of 50, but was considered acceptable given that the results were attained using different sample aliquots and laboratory methods. One pair of detected results had an RPD of 119; however, the ECD result for this pair was qualified as estimated, which indicated the associated concentration may be biased high or low, causing an exceedance of the target control limit for the RPD between results.

For 4,4'-DDD, there were seven results detected by both methods reported without an N qualifier with RPDs greater than 50 (Table A1). Four pairs of detected results had RPDs between 53 and 78, which exceeded the target of 50, but were considered acceptable given that the results were attained using different sample aliquots and laboratory methods. Three pairs of detected results had RPDs of 51, 52, and 80; however, the ECD results for these pairs were qualified as estimated, which indicated the associated concentration may be biased high or low, causing an exceedance of the target control limit for the RPD between results.

The target compound 4,4'-DDE was detected frequently by both methods at concentrations greater than 5 times the MDL. The results for 4,4'-DDE were comparable at all concentration ranges with no systematic bias, as indicated by



positive and negative RPDs less than 50 for 49 of 55 samples. For the six samples where the RPD exceeded 50, the result for one or both methods was undetected, or qualified as tentatively identified (assigned a N qualifier), or estimated (assigned a J qualifier) where greater variability is expected.

The DDT results (2,4' and 4,4' isomers) by both methods varied more than the 4,4'-DDE results, and the GC/ECD results for the DDT isomers were consistently biased high in comparison with the GC/MS results. The 2,4'-DDT and 4,4'-DDT results were comparable for selected samples ( $RPD \leq 50$ ); however, many of the results had RPDs greater than 100. For a large number of samples with RPDs greater than 50, there appears to be a correlation between the total PCB Aroclor results compared to the difference of the DDT results by each method (Figure 1). This suggests that selected DDT results ( $RPD > 50$ ) from the GC/ECD analysis may be biased high due to interference from the PCB Aroclors. Because of the potential false positive results, five results for 2,4'-DDT and 42 results for 4,4'-DDT reported by GC/ECD were additionally qualified as tentatively identified (an N qualifier was applied) when the RPD was greater than 50. Results were reported in the database according to the selection criteria provided below.

### **Recommendations for Selection of Results for Round 1**

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Of the two methods used to analyze for pesticides, GC/ECD provides greater sensitivity and GC/MS provides greater selectivity. In order to obtain the greatest benefit from each method, data were selected for reporting based on their detection status and qualification status. A set of rules was developed to select which result to report for each sample, as described below:

1. The analyte is not detected by either method: Report the lowest reporting limit.
2. The analyte is detected by GC/ECD but undetected by GC/MS-ion trap: Evaluate the qualifiers and the magnitude of the analyte concentration (GC/ECD) with respect to the reporting limit (GC/MS-ion trap).
  - a. The GC/ECD result is qualified N or NJ: Report the GC/MS-ion trap reporting limit.
  - b. The GC/ECD result is higher than the GC/MS-ion trap reporting limit and is not qualified N or NJ: Report the average of the GC/ECD result and the GC/MS-ion trap reporting limit without a "U" (i.e., the analyte is reported as detected).
  - c. The GC/ECD result is lower than the GC/MS-ion trap reporting limit and is not qualified N or NJ: Report the GC/ECD result.
3. The analyte is undetected by GC/ECD but detected by GC/MS-ion trap: Evaluate the magnitude of the analyte concentration (GC/MS-ion trap) with respect to the reporting limit (GC/ECD).
  - a. The GC/ECD reporting limit is higher than the GC/MS-ion trap result: Report the GC/MS-ion trap result.

NJ = TJC



*If U and  
positive,  
use the positive*

- b. The GC/ECD reporting limit is lower than the GC/MS-ion trap result: Report the average of the GC/ECD reporting limit and the GC/MS-ion trap result without a "U" (i.e., the analyte is reported as detected).
4. The analyte is detected by both methods: Evaluate the qualifiers.
  - a. The GC/ECD result is qualified N or NJ: Report the GC/MS-ion trap result.
  - b. Either or both results are qualified J or unqualified: Report the average of the results for GC/ECD and GC/MS-ion trap; apply a J qualifier if one or both results are J-qualified.

The selected data in Table A1 are provided in bold font. If the results will be averaged, both results are provided in bold font.

Matrix interference that resulted in elevated reporting limits for many of the target chlorinated pesticide compounds was encountered for five of the smallmouth bass samples in the Method 8270C analysis. To resolve this interference, these five sample extracts were subjected to acid cleanup. Table 2 summarizes the results prior to and after acid cleanup for the affected samples. Selected target compounds (i.e., beta-endosulfan, dieldrin, endosulfan sulfate, endrin, endrin aldehyde, endrin ketone, and methoxychlor), were not recovered after acid cleanup, as indicated by the recoveries of these compounds in the laboratory quality control samples, so results for these compounds from Method 8270C will be reported from the extract prior to acid cleanup with an elevated reporting limit. The remaining target compounds (Table 3) were successfully recovered from the acid extract, and the results from the acid cleanup extract were evaluated against the selection criteria.

### **Confirmation of Elevated Results**

As requested in EPA's October 23, 2003 data validation report and as discussed at a November 25, 2003 meeting attended by LWG and EPA chemists, Analytical Resources Inc. (ARI) evaluated the GC/MS chromatograms generated during the semivolatile organic compound (SVOC) analysis, to confirm the presence of 4,4'-DDT in two tissue samples (LWG0107R006TSSPWBC00 and LWG0108R001TSSPWBC00). These samples had concentrations in the part per million range from the original GC/ECD chlorinated pesticide analysis (see Table 3). The GC/MS analysis confirmed the presence and concentrations of 4,4'-DDT, 4,4'-DDD, and 4,4'-DDE in sample LWG0107R006TSSPWBC00 (see Table 3). The concentrations of 4,4'-DDD and 4,4'-DDE in sample LWG0107R006TSSPWBC00 are considered estimated because these compounds were not included in the calibration curve. ARI included 4,4'-DDT in the SVOC calibration for the purpose of evaluating breakdown at the injector so the 4,4'-DDT results were not reported as estimated.

ARI did not detect 4,4'-DDT, 4,4'-DDD, or 4,4'-DDE in the GC/MS evaluation of sample LWG0108R001TSSPWBC00. Therefore, reanalysis of this sample by CAS by EPA Methods 8081A and 8270C with selected ion monitoring (SIM) was



performed in December 2003. CAS reanalyzed sample aliquots from the same sample jar as was used for the original analysis by Method 8081A. The concentration of 4,4'-DDT reported from the reanalysis by EPA 8081A (54 µg/kg) was significantly lower than the initial analysis. The reanalysis results are included on Table 3. CAS also analyzed an additional aliquot of the sample for 2,4'-DDT and 4,4'-DDT by GC/MS using Method 8270C with SIM. Neither 2,4'-DDT or 4,4'-DDT was detected at a reporting limit of 200 µg/kg (Table 3) from the GC/MS analysis.

Reanalysis results for sample LWG0108R001TSSPWBC00, conducted in December 2003, were generated from a total of seven aliquots by two analytical methods: ARI GC/MS results from the SVOC extract (EPA Method 8270C); three aliquots reanalyzed by CAS by EPA Method 8081A (sample, matrix spike, matrix spike duplicate); and three aliquots reanalyzed by CAS by EPA Method 8270C SIM (sample, matrix spike, matrix spike duplicate). The reproducibility of the results from these seven aliquots was acceptable, and none of the aliquots exhibited an elevated concentration similar to the original analysis.

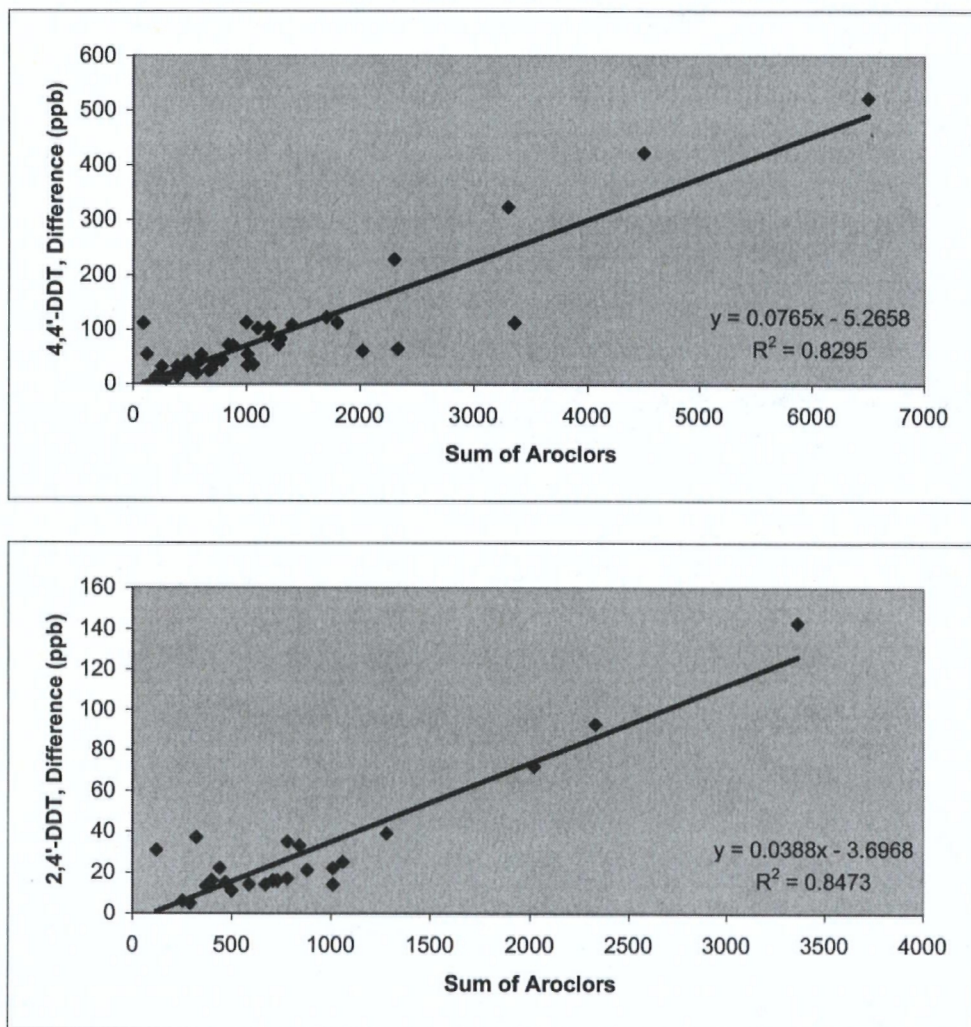
These two tissue samples were included in the samples selected for GC/MS reanalysis, and sample LWG0108R001TSSPWBC00 was analyzed in duplicate by GC/MS. For sample LWG0107R006TSSPWBC00, the GC/MS reanalysis results were comparable to the original GC/ECD reanalysis results (Table 3). The GC/MS reanalysis results for sample LWG0108R001TSSPWBC00, analyzed in duplicate, were consistent with the December 2003 GC/ECD reanalysis results. Therefore, the results from the original analysis by CAS using EPA Method 8081A were rejected due to the lack of reproducibility. The average of the reanalysis results generated by CAS using EPA Method 8081A and the GC/MS reanalysis results will be reported for sample LWG0108R001TSSPWBC00. The initial and reanalysis results will be addressed in the data quality report.

## References

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- PSEP. 1997. Puget Sound Estuary Program: Recommended Quality Assurance and Quality Control Guidelines for the Collection of Environmental Data in Puget Sound. *In:* Recommended Protocols for Measuring Selected Environmental Variables in Puget Sound. Puget Sound Action Team, Olympia, WA.
- U.S. EPA. 1999. USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Washington, DC.





**Figure 1. Comparison of total PCB Aroclor concentrations and the difference between results obtained by GC/ECD and by GC/MS-ion trap**

Values are included only when results obtained by GC/ECD and GC/MS-ion trap have an RPD greater than 50.

The difference between results was calculated as GC/ECD - GC/MS.



Table 1. Summary of Data Qualifiers for Analyses by GC/MS with Ion Trap

Sample	Analyte	Qualifier
Qualified for continuing calibration result		
LWG0108R010TSSBWBC30	Endrin	UJ <sup>a</sup>
LWG0109R006TSSBWBC00		
LWG01FZ0306TSCPFLC30		
LWG01FZ0609TSCPFLC20		
LWG01FZ0609TSCPFLC30		
LWG0103R014TSNPWBC20		
LWG0103R014TSNPWBC10		
LWG0107R009TSNPWBC00		
LWG0105R006TSNPWBC00		
Qualifier for internal standard result		
LWG0108R010TSPMWBC00	2,4'-DDD	UJ
	2,4'-DDE	UJ
	2,4'-DDT	UJ
	4,4'-DDD	J
	4,4'-DDE	J
	4,4'-DDT	UJ
	beta-Endosulfan	UJ
	cis-Nonachlor	UJ
	Dieldrin	UJ
	Endosulfan sulfate	UJ
	Endrin	UJ
	Endrin aldehyde	UJ
	Endrin ketone	UJ
	Methoxychlor	UJ
	Mirex	UJ
	trans-Chlordane	UJ
	trans-Nonachlor	UJ

Note: Results were additionally qualified by CAS when the pesticide was detected below the method reporting limit.

<sup>a</sup> Endrin was not detected in any sample by GC/MS with ion trap.



Table 2. Pesticide Concentrations With and Without Acid Cleanup

Chemical Name	Sample ID	LWG0107R009TSSBWBC20		LWG0107R009TSSBWBC30		LWG0108R010TSSBWBC10		LWG0108R010TSSBWBC20		LWG0108R032TSSBWBC00	
	Cleanup method	No acid	Acid	No acid	Acid	No acid	Acid	No acid	Acid	No acid	Acid
		µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
2,4'-DDD		100 U	13 J	100 U	29	100 U	8.6 U	100 U	8.6 U	100 U	8.6 U
2,4'-DDE		100 U	7.5 U	100 U	7.5 U	100 U	7.5 U	100 U	7.5 U	100 U	7.5 U
2,4'-DDT		100 U	17 J	100 U	6.9 U	100 U	6.9 U	100 U	6.9 U	100 U	6.9 U
4,4'-DDD		100 U	54	100	100	100 U	11 J	100 U	12 J	100 U	24 J
4,4'-DDE		190	140	140	130	100 U	55	100 U	40	100 U	95
4,4'-DDT		150	98	100 U	35	100 U	7.3 J	100 U	6.3 U	100 U	26
Aldrin		100 U	13 U	100 U	13 U	100 U	13 U	100 U	13 U	100 U	13 U
alpha-Hexachlorocyclohexane		50 U	6.4 U	50 U	6.4 U	50 U	6.4 U	50 U	6.4 U	50 U	6.4 U
beta-Endosulfan		100 U		100 U		100 U		100 U		100 U	
beta-Hexachlorocyclohexane		100 U	8.5 U	100 U	8.5 U	100 U	8.5 U	100 U	8.5 U	100 U	8.5 U
cis-Nonachlor		100 U	7.1 U	100 U	7.1 U	100 U	7.1 U	100 U	7.1 U	100 U	7.1 U
delta-Hexachlorocyclohexane		100 U	7.3 U	100 U	7.3 U	100 U	7.3 U	100 U	7.3 U	100 U	7.3 U
Dieldrin		100 U		100 U		100 U		100 U		100 U	
Endosulfan sulfate		100 U		100 U		100 U		100 U		100 U	
Endrin		100 U		100 U		100 U		100 U		100 U	
Endrin aldehyde		100 U		100 U		100 U		100 U		100 U	
Endrin ketone		100 U		100 U		100 U		100 U		100 U	
gamma-Hexachlorocyclohexane		100 U	9.6 U	100 U	9.6 U	100 U	9.6 U	100 U	9.6 U	100 U	9.6 U
Heptachlor		100 U	13 U	100 U	13 U	100 U	13 U	100 U	13 U	100 U	13 U
Heptachlor epoxide		100 U	8 U	100 U	8 U	100 U	8 U	100 U	8 U	100 U	8 U
Hexachlorobenzene		50 U	6.4 U	50 U	6.4 U	50 U	6.4 U	50 U	6.4 U	50 U	6.4 U
Hexachlorobutadiene		50 U	4.6 U	50 U	4.6 U	50 U	4.6 U	50 U	4.6 U	50 U	4.6 U
Hexachloroethane		50 U	13 U	50 U	13 U	50 U	13 U	50 U	13 U	50 U	13 U
Methoxychlor		50 U		50 U		50 U		50 U		50 U	
Mirex		50 U	6.2 U	50 U	6.2 U	50 U	6.2 U	50 U	6.2 U	50 U	6.2 U
Oxychlordane		100 U	32 U	100 U	32 U	100 U	32 U	100 U	32 U	100 U	32 U
trans-Chlordane		100 U	8.4 U	100 U	8.4 U	100 U	8.4 U	100 U	8.4 U	100 U	8.4 U
trans-Nonachlor		100 U	11 U	100 U	11 U	100 U	11 U	100 U	11 U	100 U	11 U

No acid - acid cleanup was not completed

Acid - acid cleanup was completed

J - concentration of the associated result is estimated

U - result is undetected at the detection limit shown



Table 3. Summary of Original, Confirmation, and Ion Trap Results for DDT and Metabolites in Two Samples

Sample	Analyte	CAS Concentration by EPA Method 8081A	ARI Concentration by EPA Method 8270C	CAS Concentration for Reanalysis by EPA Method 8081A	CAS Concentration by EPA Method 8270C SIM	CAS Concentration by EPA Method 8270C-Ion Trap
LWG0107R006TSSPWBC00	4,4'-DDD	350	1300 J	NA	NA	260
	4,4'-DDE	800	600 UJ	NA	NA	460
	4,4'-DDT	2000	2300	NA	NA	1400
	2,4'-DDD	96	NR	NA	NA	46
	2,4'-DDE	37 NJ	NR	NA	NA	27
	2,4'-DDT	400	NR	NA	NA	250
LWG0108R001TSSPWBC00	4,4'-DDD	140 R	580 UJ	19 U	NA	6.1 U
	4,4'-DDE	170 R	580 UJ	22 U	NA	29
	4,4'-DDT	14000 R	580 UJ	54	200 U	8.9 J
	2,4'-DDD	27 R	NR	19 U	NA	8.6 U
	2,4'-DDE	4 UR	NR	19 U	NA	7.5 U
	2,4'-DDT	2700 R	NR	63 NJ	200 U	6.9 U

## Notes:

Units are µg/kg as received

CAS - Analyzed by Columbia Analytical Services, Kelso, Washington.

ARI - Analyzed by Analytical Resources, Inc., Tukwila, Washington

NA - Not analyzed

NR - Not reported

J - concentration of the associated result is estimated

N - the analyte is tentatively identified

U - result is undetected at the detection limit shown

UJ- result is undetected at an estimated detection limit

R - result was rejected

Table A1. Pesticide Concentrations by GC/ECD and by GC/MS with Ion Trap

Sample Identifier	Chemical Name		Sum of Aroclors		Lipids		2,4'-DDD			2,4'-DDE			2,4'-DDT			4,4'-DDD		
	Analytical Method	Calculated	PSEP percent	PSEP percent	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	
LWG0107R009TSSBWBC20		90	1.5	3.8	-86.8	6 U	13 J	-73.7	4 U	7.5 U		16 NJ	17 J	-6	56	54	4	
LWG0107R009TSSBWBC30		780 J	5.3	3.6	38	28 NJ	29	-4	7.5 UJ	7.5 U		24 NJ	6.9 U	111	120	100	18	
LWG0108R010TSSBWBC10		4500 J	5	4.4	13	52 N	8.6 U	143	25 U	7.5 U		69 U	6.9 U		20 U	11 J		
LWG0108R010TSSBWBC20		3300 J	6.6	5.7	15	48 U	8.6 U		20 U	7.5 U		47 U	6.9 U		20 U	12 J		
LWG0108R032TSSBWBC00		880 J	6.6	4.6	36	22 NJ	8.6 U	88	4 UJ	7.5 U		28 NJ	6.9 U	121	26	24 J	8	
LWG0102R001TSSPWBC00		2330 J	3.5	2.3	41	4 U	8.6 U		19 UJ	7.5 U		100 NJ	6.9 U	174	8.1 NJ	14 J	-53	
LWG0102R015TSSPWBC00		3360	4.1	2.6	45	8.1 U	8.6 U		29 UJ	7.5 U		150 NJ	6.9 U	182	8.5 NJ	9.2 J	-8	
LWG0103R014TSLSWBC10		2020 J	8.7	8	8	15 U	8.6 U		4 U	7.5 U		79 N	6.9 U	168	37 N	41	-10	
LWG0103R014TSNPWBC10		710	6.3	5	23.01	9.9 U	8.6 U		9.9 U	7.5 U		23 NJ	6.9 U	107.7	39 N	46	-16.5	
LWG0103R014TSNPWBC20		370	8.1	6.6	20	4.5 U	8.6 U		4 U	7.5 U		20 NJ	6.9 U	97	34	47	-32	
LWG0103R014TSPMWBC00		147	7.9	7	12	4 U	8.6 U		1 U	7.5 U		5.7 J	6.9 U		16	6.1 U	90	
LWG0103R014TSSBWBC00		780	5.5	4.4	22	5.4 U	8.6 U		4 U	7.5 U		42 NJ	6.9 U	144	29 J	32	-10	
LWG0103R034TSSPWBC00		500	5.2	4.4	17	4 U	8.6 U		4 UJ	7.5 U		18 NJ	6.9 U	89	6.9 N	6.1 U	12	
LWG0104R023TSSBWBC10		1280	7.2	6.4	12	11 U	9.6 J		4 U	7.5 U		46 NJ	6.9 U	148	42 NJ	47	-11	
LWG0104R023TSSBWBC20		470	6.1	5.6	9	4.9 U	8.6 U		4 U	7.5 U		22 NJ	6.9 U	104	25 J	42	-51	
LWG0104R023TSSBWBC30		590	6.4	6.7	-5	4.9 U	8.6 U		1 U	7.5 U		21 NJ	6.9 U	101	23 J	39	-52	
LWG0105R001TSSPWBC00		196 J	5.4	3.7	37	1 U	8.6 U		1 UJ	7.5 U		10	6.9 U	37	4.7 N	6.1 U		
LWG0105R006TSNPWBC00		440	4.6	3.9	16	6.1 U	8.6 U		4 U	7.5 U		29 NJ	6.9 U	123	47	49	-4	
LWG0105R006TSPMWBC00		174	10.7	8.7	21	15 NJ	8.6 U	54	1.7 U	7.5 U		7 NJ	6.9 U	1	18	31	-53	
LWG0105R006TSSBWBC00		390	7	6	15	6.5 U	8.6 U		1.5 U	7.5 U		20 NJ	6.9 U	97	30 J	40	-29	
LWG0106R002TSSPWBC10		600 J	6	4.4	31	4 U	8.6 U		4 U	7.5 U		9 U	6.9 U		5.3 N	6.1 U		
LWG0106R002TSSPWBC20		2300	3.5	3.5	0	20 U	8.6 U		20 U	7.5 U		23 U	6.9 U		20 U	12 J		
LWG0106R004TSSPWBC00		400 J	5.2	3.8	31	40 J	26	42	10 NJ	14 J	-33	34 NJ	18 J	62	150 J	130	14	
LWG0106R024TSSBWBC00		252	2.3	1.5	42	4.3 NJ	8.6 U		1 U	7.5 U		13 NJ	6.9 U	61	17 J	21 J	-21	
LWG0107R003TSSPWBC00		226 J	3.9	2.2	56	25 U	18 J		7.1 NJ	7.9 J	-11	78	47	50	90	78	14	
LWG0107R006TSCAWBC00		120	0.87	0.66	27	100	64	44	12 J	13 J	-8	70 N	39	57	210	110	63	
LWG0107R006TSSPWBC00		430 J	2.2	1.2	59	96	46	70	37 NJ	27	31	400	250	46	350	260	30	
LWG0107R009TSLSWBC00		1400	6.9	8.4	-20	37 N	8.6 U	125	20 U	7.5 U		27 U	6.9 U		37 N	57	-43	
LWG0107R009TSNPWBC00		1800	2.3	2.3	0	19 U	29	-42	39 NJ	53	-30	110 NJ	91	19	45 N	43	5	
LWG0107R009TSSBWBC10		430	6	5.5	9	27 NJ	8.6 U	103	6.5 U	7.5 U		42 NJ	30	33	53	63	-17	
LWG0108R001TSSPWBC00		187	3	2.7	11	19 U	8.6 U		19 U	7.5 U		63 NJ	6.9 U	161	19 U	6.1 U		
LWG0108R001TSSPWBC00-DUP <sup>a</sup>				3			8.6 U			7.5 U			6.9 U			6.1 U		
LWG0108R003TSSPWBC00		480 J	3.5	2.5	33	4 U	8.6 U		4 U	7.5 U		14 U	6.9 U		4.3 N	6.1 U		



Table A1. Pesticide Concentrations by GC/ECD and by GC/MS with Ion Trap

Sample Identifier	Chemical Name		Sum of Aroclors		Lipids		2,4'-DDD			2,4'-DDE			2,4'-DDT			4,4'-DDD		
	Analytical Method	Calculated	PSEP	PSEP	RPD	SW8081A		RPD	SW8081A		RPD	SW8081A		RPD	SW8081A		RPD	
						µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg		
LWG0108R010TSLSWBC00		320	7.5	7.2	4	62 NJ	40	43	6.7 U	7.5 U		87 N	50	54	150	150	0	
LWG0108R010TSPMWBC00		138	10.2	9.4	8	4.2 U	8.6 UJ		1 U	7.5 UJ		5.3 N	6.9 UJ		15	35 J	-80	
LWG0108R010TSSBWBC30		1000	5.5	4.4	22	23 NJ	8.6 U	91	10 U	7.5 U		26 U	6.9 U		18	33	-59	
LWG0109R001TSPWBBC00		510 J	3.5	2.9	19	4 UJ	8.6 U		4 U	7.5 U		12 U	6.9 U		4 U	6.1 U		
LWG0109R006TSLSWBC00		730	5.4	5	8	9.9 U	8.6 U		4 U	7.5 U		23 NJ	6.9 U	108	28 J	27	4	
LWG0109R006TSNPWBBC00		1010	4.4	3	38	10 U	8.6 U		10 U	7.5 U		29 NJ	6.9 U	123	18 N	6.1 U	99	
LWG0109R006TSPMWBC00		290	7.9	7.2	9	5.8 U	8.6 U		2.1 U	7.5 U		12 NJ	6.9 U	54	18	41	-78	
LWG0109R006TSSBWBC00		840 J	5.1	3.8	29	8.6 U	8.6 U		11 UJ	7.5 U		40 NJ	6.9 U	141	32	43	-29	
LWG01FZ0306TSCPFLC10		670	4.3	4	7	11 NJ	8.6 U	24	4 UJ	7.5 U		21 NJ	6.9 U	101	33 J	34	-3	
LWG01FZ0306TSCPFLC30		1060	8	7	13	15 U	8.6 U		4 U	7.5 U		32 NJ	6.9 U	129	42 J	34	21	
LWG01FZ0306TSPWBBC20		6500 J	8	8	0	130 J	33	119	20 U	7.5 U		120 U	6.9 U		87 J	92	-6	
LWG01FZ0306TSPWBBC30		230	6.9	6.5	6	16 NJ	8.6 U	60	1 U	7.5 U		9.3 NJ	6.9 U	30	33 J	43	-26	
LWG01FZ0609TSBBFLC20		1300 J	1.2	1.2	0	20 U	8.6 U		20 U	7.5 U		21 U	6.9 U		20 U	6.1 U		
LWG01FZ0609TSBBFLC30		560	0.97	0.94	3	4.3 N	8.6 U		4 U	7.5 U		4.8 U	6.9 U		5 N	6.1 U		
LWG01FZ0609TSBBWBC10		1700	1.3	1.6	-21	20 U	8.6 U		20 U	7.5 U		26 U	6.9 U		20 U	8 J		
LWG01FZ0609TSBCWBC20		250	7.5	6.3	17	3 U	8.6 U		1 U	7.5 U		10 NJ	6.9 U	37	16 J	21 J	-27	
LWG01FZ0609TSCPFLC10		1200 J	4.4	4.1	7	20 U	8.6 U		20 U	7.5 U		23 U	6.9 U		26 J	27	-4	
LWG01FZ0609TSCPFLC20		390	4.4	3	38	20 J	12 J	50	4 U	7.5 U		11 NJ	6.9 U	46	70	57	20	
LWG01FZ0609TSCPFLC30		1200 J	4.5	4	12	28 NJ	11 J	87	9.8 UJ	7.5 U		24 U	6.9 U		42 J	45	-7	
LWG01FZ0609TSPWBBC10		690	6.7	5.1	27	12 NJ	8.6 U	33	4 UJ	7.5 U		16 U	6.9 U		39 J	6.1 U	146	
LWG01FZ0609TSPWBBC20		1010	13	13	0	43 NJ	8.6 U	133	5 UJ	7.5 U		21 NJ	6.9 U	101	55 J	60	-9	
LWG01FZ0609TSPWBBC30		1100	5.6	6.3	-12	33 J	8.6 U	117	9.9 U	7.5 U		24 U	6.9 U		38 J	50	-27	

Table A1. Pesticide Concentrations by GC/ECD and by GC/MS with Ion Trap

Sample Identifier	Chemical Name Analytical Method	4,4'-DDE			4,4'-DDT			Aldrin			alpha-Hexachlorocyclohexane			beta-Endosulfan			beta-Hexachlorocyclohexane		
		SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD
		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg	
LWG0107R009TSSBWBC20		220	140	44	210 N	98	73	4 U	13 U		4 U	6.4 U		4 U	100 U		4 U	8.5 U	
LWG0107R009TSSBWBC30		190	130	38	79 N	35	77	4 U	13 U		4 U	6.4 U		4 U	100 U		6.3 N	8.5 U	
LWG0108R010TSSBWBC10		130 J	55	81	430 N	7.3 J	193	20 U	13 U		20 U	6.4 U		20 U	100 U		6.1 NJ	8.5 U	
LWG0108R010TSSBWBC20		66 J	40	49	330 N	6.3 U	193	20 U	13 U		20 U	6.4 U		20 U	100 U		20 U	8.5 U	
LWG0108R032TSSBWBC00		160 J	95	51	97 N	26	115	4 U	13 U		4 U	6.4 U		4 U	100 U		4.7 N	8.5 U	
LWG0102R001TSSPWBC00		95 NJ	30	104	72 NJ	6.3 U	168	4 U	13 U		4 U	6.4 U		4 U	15 U		4 U	8.5 U	
LWG0102R015TSSPWBC00		30 U	28		120 N	6.3 U	180	4 U	13 U		4 U	6.4 U		4 U	15 U		5.3 NJ	8.5 U	
LWG0103R014TSLSWBC10		200	120	50	79 N	17 J	129	4 U	13 U		4 U	6.4 U		4.1 U	15 U		4 U	8.5 U	
LWG0103R014TSNPWBC10		240	210	13	46 N	6.3 U	152	9.9 U	13 U		9.9 U	6.4 U		9.9 U	15 U		9.9 U	8.5 U	
LWG0103R014TSNPWBC20		240	180	29	25 N	6.3 U	119	4 U	13 U		4 U	6.4 U		4 U	15 U		4 U	8.5 U	
LWG0103R014TSPMWBC00		120	98	20	6.5 J	6.3 U	3	1 U	13 U		1 U	6.4 U		1 U	15 U		4.1 U	8.5 U	
LWG0103R014TSSBWBC00		180	110	48	62 NJ	15 J	122	4 U	13 U		4 U	6.4 U		4 U	15 U		4 U	8.5 U	
LWG0103R034TSSPWBC00		19 U	24 J	-23	43 NJ	12 J	113	4.5 NJ	13 U		4 U	6.4 U		4 U	15 U		4.8 U	8.5 U	
LWG0104R023TSSBWBC10		270	170	45	100 NJ	27	115	4 U	13 U		4 U	6.4 U		4 U	15 U		4 UJ	8.5 U	
LWG0104R023TSSBWBC20		160	120	29	45 N	6.3 U	151	4 U	13 U		4 U	6.4 U		4 U	15 U		4 U	8.5 U	
LWG0104R023TSSBWBC30		110 J	89	21	50 NJ	6.3 U	155	1 U	13 U		1 U	6.4 U		1.3 UJ	15 U		1.2 UJ	8.5 U	
LWG0105R001TSSPWBC00		15 U	16 J	-6	19 N	6.3 U	100	1 U	13 U		1 U	6.4 U		1.3 U	15 U		3.7 NJ	8.5 U	
LWG0105R006TSNPWBC00		360	250	36	36 NJ	6.3 U	140	4 U	13 U		4 U	6.4 U		4 U	15 U		4 U	8.5 U	
LWG0105R006TSPMWBC00		110	110	0	7.7	6.3 U	20	1.2 U	13 U		1 U	6.4 U		1 U	15 U		2.4 U	8.5 U	
LWG0105R006TSSBWBC00		120 J	96	22	68 NJ	35	64	1 U	13 U		1 U	6.4 U		1.2 UJ	15 U		1.4 UJ	8.5 U	
LWG0106R002TSSPWBC10		19 U	19 J		61 NJ	6.3 U	163	4 U	13 U		4 U	6.4 U		4 U	15 U		9.6 N	8.5 U	12
LWG0106R002TSSPWBC20		22 U	26	-16.7	240 NJ	11 J	182.5	20 U	13 U		20 U	6.4 U		20 U	15 U		20 U	8.5 U	
LWG0106R004TSSPWBC00		330 J	130	87	150 J	120	22	4 UJ	13 U		4 U	6.4 U		4 U	15 U		8.8 NJ	8.5 U	3
LWG0106R024TSSBWBC00		110 J	100	10	49 NJ	17 J	97	1 U	13 U		1 U	6.4 U		1 UJ	15 U		1.1 NJ	8.5 U	
LWG0107R003TSSPWBC00		180	140	25	280	220	24	1 U	13 U		1 U	6.4 U		1.7 U	15 U		2.4 NJ	8.5 U	
LWG0107R006TSCAWBC00		120	69	54	130 N	75	54	1 U	13 U		1 U	6.4 U		2.1 U	15 U		2.5 NJ	8.5 U	
LWG0107R006TSSPWBC00		800	460	54	2000	1400	35	1 U	13 U		1.8 U	6.4 U		1 U	15 U		1 U	8.5 U	
LWG0107R009TSLSWBC00		92 J	100	-8	140 NJ	31	127	20 U	13 U		20 U	6.4 U		20 U	15 U		20 U	8.5 U	
LWG0107R009TSNPWBC00		560	530	6	120 NJ	6.3 U	180	19 U	13 U		19 U	6.4 U		19 U	15 U		19 U	8.5 U	
LWG0107R009TSSBWBC10		220	160	32	150	110	31	4 U	13 U		4 U	6.4 U		4 U	15 U		4 U	8.5 U	
LWG0108R001TSSPWBC00		22 U	29	-27	54 N	8.9 J	143	4 U	13 U		4 U	6.4 U		4 U	15 U		4.9 NJ	8.5 U	
LWG0108R001TSSPWBC00-DUP <sup>a</sup>			37			15 J			13 U			6.4 U			15 U			8.5 U	
LWG0108R003TSSPWBC00		17 U	18 J	-6	47 N	6.3 U	153	4 U	13 U		4 U	6.4 U		4 U	15 U		4 U	8.5 U	



Table A1. Pesticide Concentrations by GC/ECD and by GC/MS with Ion Trap

Sample Identifier	Chemical Name Analytical Method		4,4'-DDE			4,4'-DDT			Aldrin			alpha-Hexachlorocyclohexane			beta-Endosulfan			beta-Hexachlorocyclohexane		
			SW8081A		SW8270C	SW8081A		SW8270C	SW8081A		SW8270C	SW8081A		SW8270C	SW8081A		SW8270C	SW8081A		SW8270C
			µg/kg	µg/kg	RPD	µg/kg	µg/kg	RPD	µg/kg	µg/kg	RPD	µg/kg	µg/kg	RPD	µg/kg	µg/kg	RPD	µg/kg	µg/kg	RPD
LWG0108R010TSLSWBC00			210	160	27	290	200	37	4 U	13 U		4 U	6.4 U		4 U	15 U		4 U	8.5 U	
LWG0108R010TSPMWBC00			110	140 J	-24	5.2 NJ	6.3 UJ		1.7 U	13 U		1 U	6.4 U		1 U	15 UJ		2.7 U	8.5 U	
LWG0108R010TSSBWBC30			96 J	67	36	120 N	6.3 U	180	10 U	13 U		10 U	6.4 U		10 U	15 U		10 U	8.5 U	
LWG0109R001TSPWBC00			21 U	24 J	-13	51 N	19 J	91	4 U	13 U		4 U	6.4 U		4 U	15 U		6.7 NJ	8.5 U	
LWG0109R006TSLSWBC00			130	100	26	48 N	6.3 U	154	4 U	13 U		4 U	6.4 U		4 U	15 U		4 U	8.5 U	
LWG0109R006TSPWBC00			140	150	-7	41 NJ	6.3 U	147	10 U	13 U		10 U	6.4 U		10 U	15 U		10 U	8.5 U	
LWG0109R006TSPMWBC00			210	160	27	16 N	6.3 U	87	1 U	13 U		1 U	6.4 U		1.2 U	15 U		3.6 U	8.5 U	
LWG0109R006TSSBWBC00			180	100	57	79 N	6.3 U	170	4 U	13 U		4 U	6.4 U		4 U	15 U		4.4 NJ	8.5 U	
LWG01FZ0306TSCFCLC10			110 J	87	23	31 NJ	6.3 U	132	4 U	13 U		4 U	6.4 U		4 UJ	15 U		4 UJ	8.5 U	
LWG01FZ0306TSCFCLC30			160 J	110	37	43 NJ	6.3 U	149	4 U	13 U		4 U	6.4 U		4 U	15 U		5.9 U	8.5 U	
LWG01FZ0306TSPWBC20			300 J	220	31	530 NJ	6.3 U	195	20 U	13 U		20 U	6.4 U		20 U	15 U		20 U	8.5 U	
LWG01FZ0306TSPWBC30			130 J	79	49	21 NJ	6.3 U	108	1 U	13 U		1 U	6.4 U		9.7 UJ	15 U		3 UJ	8.5 U	
LWG01FZ0609TSBBFLC20		20 N		12 J	50	91 NJ	6.3 U	174	20 U	13 U		20 U	6.4 U		20 U	15 U		20 U	8.5 U	
LWG01FZ0609TSBBFLC30			30	23 J	26	27 NJ	6.3 U	124	4 U	13 U		4 U	6.4 U		4 U	15 U		4 U	8.5 U	
LWG01FZ0609TSBBWBC10			26 J	33	-24	130 NJ	6.3 U	182	20 U	13 U		20 U	6.4 U		20 U	15 U		20 U	8.5 U	
LWG01FZ0609TSBCWBC20			95	66	36	19 NJ	6.3 U	100	1 U	13 U		1 U	6.4 U		1.1 U	15 U		1.5 U	8.5 U	
LWG01FZ0609TSCFCLC10			79 J	67	16	96 NJ	6.3 U	175	20 U	13 U		20 U	6.4 U		20 UJ	15 U		20 UJ	8.5 U	
LWG01FZ0609TSCFCLC20			110	73	40	20 NJ	6.3 U	104	4 U	13 U		4 U	6.4 U		4 U	15 U		4 U	8.5 U	
LWG01FZ0609TSCFCLC30			94	73	25	110 NJ	6.3 U	178	9.8 U	13 U		9.8 U	6.4 U		9.8 U	15 U		9.8 U	8.5 U	
LWG01FZ0609TSPWBC10			150	140	7	34 NJ	6.3 U	137	4 U	13 U		4 U	6.4 U		11 U	15 U		6.1 U	8.5 U	
LWG01FZ0609TSPWBC20			150	110	31	62 NJ	6.3 U	163	4 U	13 U		4 U	6.4 U		21 N	15 U	33	4 U	8.5 U	
LWG01FZ0609TSPWBC30			87 J	96	-10	110 NJ	6.3 U	178	9.9 U	13 U		9.9 U	6.4 U		9.9 U	15 U		9.9 U	8.5 U	

Table A1. Pesticide Concentrations by GC/ECD and by GC/MS with Ion Trap

Sample Identifier	Chemical Name		cis-Nonachlor			delta-Hexachlorocyclohexane			Dieldrin			Endosulfan sulfate			Endrin			Endrin aldehyde		
	Analytical Method	SW8081A	SW8270C		RPD	SW8081A		SW8270C	SW8081A		SW8270C	SW8081A		SW8270C	SW8081A		SW8270C	SW8081A		SW8270C
			µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg	
LWG0107R009TSSBWBC20		32 U	7.1 U			4 U	7.3 U		4 U	100 U		4 U	100 U		4 U	100 U		4 U	100 U	
LWG0107R009TSSBWBC30		31 U	7.1 U			4 U	7.3 U		5.5 U	100 U		4 U	100 U		4 U	100 U		4 U	100 U	
LWG0108R010TSSBWBC10		20 U	7.1 U			20 U	7.3 U		20 U	100 U		20 U	100 U		20 U	100 U		20 U	100 U	
LWG0108R010TSSBWBC20		20 U	7.1 U			20 U	7.3 U		20 U	100 U		20 U	100 U		20 U	100 U		20 U	100 U	
LWG0108R032TSSBWBC00		18 U	7.1 U			4 U	7.3 U		7.3 J	100 U		4 U	100 U		4 U	100 U		4 U	100 U	
LWG0102R001TSSPWBC00		8.6 U	7.1 U			4 U	7.3 U		34 J	14 U	83	4 U	12 U		8.3 N	31 U		8.8 N	8.5 U	3
LWG0102R015TSSPWBC00		9.5 U	7.1 U			4 U	7.3 U		48 NJ	14 U	110	4 U	12 U		15 N	31 U		8.6 U	8.5 U	
LWG0103R014TSLSWBC10		24 U	7.1 U			4 U	7.3 U		23 U	14 U		4 U	12 U		8.7 N	31 U		4 U	8.5 U	
LWG0103R014TSNPWBC10		28 U	7.1 U			9.9 U	7.3 U		9.9 U	14 U		9.9 U	12 U		9.9 U	31 UJ		9.9 U	8.5 U	
LWG0103R014TSNPWBC20		24 U	7.1 U			4 U	7.3 U		5.9 NJ	14 U		4 U	12 U		4 U	31 UJ		4 U	8.5 U	
LWG0103R014TSPMWBC00		5.7 U	7.1 U			1.3 U	7.3 U		1.9 U	14 U		1 U	12 U		1 U	31 U		1.6 U	8.5 U	
LWG0103R014TSSBWBC00		20 U	7.1 U			4 U	7.3 U		14 NJ	14 U		4 U	12 U		7.4 NJ	31 U		4 U	8.5 U	
LWG0103R034TSSPWBC00		4.4 U	7.1 U			4 U	7.3 U		4 U	14 U		4 U	12 U		4.8 NJ	31 U		4 U	8.5 U	
LWG0104R023TSSBWBC10		31 U	7.1 U			4 U	7.3 U		12 NJ	14 U		4 U	12 U		11 NJ	31 U		4.3 U	8.5 U	
LWG0104R023TSSBWBC20		18 U	7.1 U			4 U	7.3 U		6.7 NJ	14 U		4 U	12 U		4 U	31 U		4 U	8.5 U	
LWG0104R023TSSBWBC30		17 U	7.1 U			1 U	7.3 U		6.4 NJ	14 U		1 UJ	12 U		1.8 UJ	31 U		1.5 UJ	8.5 U	
LWG0105R001TSSPWBC00		3.6 UJ	7.1 U			1 U	7.3 U		4.4 NJ	14 U		1.1 NJ	12 U		1 U	31 U		1.5 UJ	8.5 U	
LWG0105R006TSNPWBC00		30 U	7.1 U			4 U	7.3 U		4.9 U	14 U		4 U	12 U		4 U	31 UJ		4 U	8.5 U	
LWG0105R006TSPMWBC00		7.3 U	7.1 U			1.6 U	7.3 U		2.2 U	14 U		1 U	12 U		1 U	31 U		1.1 U	8.5 U	
LWG0105R006TSSBWBC00		22 U	7.1 U			1 U	7.3 U		5.8 UJ	14 U		1 UJ	12 U		1.4 UJ	31 U		2.2 UJ	8.5 U	
LWG0106R002TSSPWBC10		4 UJ	7.1 U			4 U	7.3 U		4 U	14 U		4 U	12 U		4 U	31 U		4 U	8.5 U	
LWG0106R002TSSPWBC20		20 U	7.1 U			20 U	7.3 U		20 U	14 U		20 U	12 U		20 U	31 U		20 U	8.5 U	
LWG0106R004TSSPWBC00		32 UJ	7.1 U			4 U	7.3 U		5 NJ	14 U		4 UJ	12 U		4 U	31 U		4 U	8.5 U	
LWG0106R024TSSBWBC00		12 U	7.1 U			1 U	7.3 U		2.5 NJ	14 U		1 UJ	12 U		1 UJ	31 U		1 UJ	8.5 U	
LWG0107R003TSSPWBC00		51 UJ	7.1 U			1 U	7.3 U		3.5 U	14 U		1 U	12 U		1 U	31 U		1.7 UJ	8.5 U	
LWG0107R006TSCAWBC00		35 U	7.1 U			1 U	7.3 U		1 U	14 U		1 UJ	12 U		2.4 U	31 U		1 UJ	8.5 U	
LWG0107R006TSSPWBC00		240 UJ	7.1 U			1 U	7.3 U		10 U	14 U		1.7 U	12 U		2.5 U	31 U		2.9 UJ	8.5 U	
LWG0107R009TSLSWBC00		22 U	7.1 U			20 U	7.3 U		20 U	14 U		20 U	12 U		20 U	31 U		20 U	8.5 U	
LWG0107R009TSNPWBC00		22 U	7.1 U			19 U	7.3 U		19 U	14 U		19 U	12 U		19 U	31 UJ		19 U	8.5 U	
LWG0107R009TSSBWBC10		36 U	7.1 U			4 U	7.3 U		5.7 N	14 U		4 U	12 U		4 U	31 U		4 U	8.5 U	
LWG0108R001TSSPWBC00		67 UJ	7.1 U			4 UJ	7.3 U		5.5 NJ	14 U		9.9 NJ	12 U		4 U	31 U		5.3 U	8.5 U	
LWG0108R001TSSPWBC00-DUP*			7.1 U				7.3 U			14 U			12 U			31 U			8.5 U	
LWG0108R003TSSPWBC00		4 U	7.1 U			4 U	7.3 U		4 U	14 U		4 U	12 U		4 U	31 U		4 U	8.5 U	



Table A1. Pesticide Concentrations by GC/ECD and by GC/MS with Ion Trap

Sample Identifier	Chemical Name		cis-Nonachlor			delta-Hexachlorocyclohexane			Dieldrin			Endosulfan sulfate			Endrin			Endrin aldehyde		
	Analytical Method		SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD
			µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg	
LWG0108R010TSLSWBC00			56 U	7.1 U		4 U	7.3 U		4.8 U	14 U		4 U	12 U		4 U	31 U		4 U	8.5 U	
LWG0108R010TSPMWBC00			5.2 U	7.1 UJ		2.1 U	7.3 U		1.4 U	14 UJ		1 U	12 UJ		1 U	31 UJ		1 U	8.5 UJ	
LWG0108R010TSSBWBC30			12 U	7.1 U		10 U	7.3 U		10 U	14 U		10 U	12 U		10 U	31 UJ		10 U	8.5 U	
LWG0109R001TSSPWBC00			4 UJ	7.1 U		4 U	7.3 U		4 U	14 U		4 U	12 U		4 U	31 U		4 U	8.5 U	
LWG0109R006TSLSWBC00			16 U	7.1 U		4 U	7.3 U		7.1 U	14 U		4 U	12 U		4 U	31 U		4 U	8.5 U	
LWG0109R006TSNPWBC00			12 U	7.1 U		10 U	7.3 U		10 U	14 U		10 U	12 U		10 U	31 U		10 U	8.5 U	
LWG0109R006TSPMWBC00			9.7 U	7.1 U		2.2 U	7.3 U		3.3 U	14 U		1 U	12 U		1 U	31 U		1 U	8.5 U	
LWG0109R006TSSBWBC00			24 U	7.1 U		4 U	7.3 U		13 NJ	14 U		4 U	12 U		4 U	31 UJ		6 U	8.5 U	
LWG01FZ0306TSCPFLC10			21 U	7.1 U		4 U	7.3 U		5.3 UJ	14 U		4 UJ	12 U		4 UJ	31 U		4 UJ	8.5 U	
LWG01FZ0306TSCPFLC30			27 U	7.1 U		4 UJ	7.3 U		7.2 U	14 U		4 U	12 U		8.5 NJ	31 UJ		4 U	8.5 U	
LWG01FZ0306TSCPWBC20			55 U	7.1 U		20 U	7.3 U		20 U	14 U		20 U	12 U		20 U	31 U		20 U	8.5 U	
LWG01FZ0306TSCPWBC30			16 U	7.1 U		1 U	7.3 U		6.2 UJ	14 U		1 UJ	12 U		1 UJ	31 U		1.8 UJ	8.5 U	
LWG01FZ0609TSBBFLC20			20 U	7.1 U		20 U	7.3 U		20 U	14 U		20 U	12 U		20 U	31 U		20 U	8.5 U	
LWG01FZ0609TSBBFLC30			4 U	7.1 U		4 U	7.3 U		4 U	14 U		4 U	12 U		4 U	31 U		4 U	8.5 U	
LWG01FZ0609TSBBWBC10			20 U	7.1 U		20 U	7.3 U		20 U	14 U		20 U	12 U		20 U	31 U		20 U	8.5 U	
LWG01FZ0609TSBCWBC20			9.8 U	7.1 U		1.7 NJ	7.3 U		9.5 NJ	14 U		1.2 N	12 U		1.2 U	31 U		1 UJ	8.5 U	
LWG01FZ0609TSCPFLC10			20 U	7.1 U		20 U	7.3 U		20 UJ	14 U		20 UJ	12 U		20 UJ	31 U		20 UJ	8.5 U	
LWG01FZ0609TSCPFLC20			17 U	7.1 U		4 U	7.3 U		4 U	14 U		4 U	12 U		4 U	31 UJ		4 U	8.5 U	
LWG01FZ0609TSCPFLC30			27 U	7.1 U		9.8 U	7.3 U		9.8 U	14 U		9.8 U	12 U		9.8 U	31 UJ		9.8 U	8.5 U	
LWG01FZ0609TSCPWBC10			24 U	7.1 U		4 U	7.3 U		5.2 U	14 U		4 U	12 U		4 U	31 U		4 U	8.5 U	
LWG01FZ0609TSCPWBC20			33 U	7.1 U		4 U	7.3 U		4 U	14 U		4 U	12 U		4 U	31 U		4 U	8.5 U	
LWG01FZ0609TSCPWBC30			21 U	7.1 U		9.9 U	7.3 U		9.9 U	14 U		9.9 U	12 U		9.9 U	31 U		9.9 U	8.5 U	

Table A1. Pesticide Concentrations by GC/ECD and by GC/MS with Ion Trap

Sample Identifier	Chemical Name Analytical Method	Endrin ketone			gamma-Hexachlorocyclohexane			Heptachlor			Heptachlor epoxide			Hexachlorobenzene			Hexachlorobutadiene		
		SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD
		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg		µg/kg	µg/kg	
LWG0107R009TSSBWBC20		4 U	100 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 UJ	4.6 U	
LWG0107R009TSSBWBC30		4 U	100 U		4 U	9.6 U		4 U	13 U		4 U	8 U		10 NJ	6.4 U	44	4 UJ	4.6 U	
LWG0108R010TSSBWBC10		20 U	100 U		20 U	9.6 U		20 U	13 U		20 U	8 U		20 U	6.4 U		20 U	4.6 U	
LWG0108R010TSSBWBC20		20 U	100 U		20 U	9.6 U		20 U	13 U		20 U	8 U		20 U	6.4 U		20 U	4.6 U	
LWG0108R032TSSBWBC00		4 U	100 U		4 UJ	9.6 U		4 U	13 U		7 U	8 U		12 NJ	6.4 U	61	4 UJ	4.6 U	
LWG0102R001TSSPWBC00		4 U	7.5 U		4 U	9.6 U		4 U	13 U		4.1 N	8 U		4 U	6.4 U		4 UJ	4.6 U	
LWG0102R015TSSPWBC00		4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 UJ	4.6 U	
LWG0103R014TSLSWBC10		4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 U	4.6 U	
LWG0103R014TSNPWBC10		9.9 U	7.5 U		9.9 U	9.6 U		9.9 U	13 U		9.9 U	8 U		9.9 U	6.4 U		9.9 UJ	4.6 U	
LWG0103R014TSNPWBC20		4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 UJ	4.6 U	
LWG0103R014TSPMWBC00		1 U	7.5 U		3.3 U	9.6 U		2.3 U	13 U		1 U	8 U		7.3 N	6.4 U	13	1 UJ	4.6 U	
LWG0103R014TSSBWBC00		4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		9.3 NJ	6.4 U	37	4 U	4.6 U	
LWG0103R034TSSPWBC00		4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 U	4.6 U	
LWG0104R023TSSBWBC10		4 U	7.5 U		4.7 NJ	9.6 U		4 U	13 U		4 U	8 U		9.1 NJ	6.4 U	35	4 UJ	4.6 U	
LWG0104R023TSSBWBC20		4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		9.3 NJ	6.4 U	37	4 U	4.6 U	
LWG0104R023TSSBWBC30		1 UJ	7.5 U		1 U	9.6 U		1.1 U	13 U		1 U	8 U		5.6 N	6.4 U		2.8 NJ	4.6 U	
LWG0105R001TSSPWBC00		1 UJ	7.5 U		1.4 N	9.6 U		1 U	13 U		1 U	8 U		3.6 NJ	6.4 U		1 UJ	4.6 U	
LWG0105R006TSNPWBC00		4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 UJ	4.6 U	
LWG0105R006TSPMWBC00		1 UJ	7.5 U		1.9 U	9.6 U		2 U	13 U		1 U	8 U		3.8 U	6.4 U		1 UJ	4.6 U	
LWG0105R006TSSBWBC00		1 UJ	7.5 U		1 U	9.6 U		1.1 U	13 U		1 U	8 U		3.2 NJ	6.4 U		2.1 NJ	4.6 U	
LWG0106R002TSSPWBC10		4 U	7.5 U		4.4 NJ	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 U	4.6 U	
LWG0106R002TSSPWBC20		20 U	7.5 U		20 U	9.6 U		20 U	13 U		20 U	8 U		20 U	6.4 U		20 UJ	4.6 U	
LWG0106R004TSSPWBC00		4 U	7.5 U		4 UJ	9.6 U		4 U	13 U		4 U	8 U		11 NJ	6.4 U	53	4 UJ	4.6 U	
LWG0106R024TSSBWBC00		1 UJ	7.5 U		1 U	9.6 U		1 U	13 U		1 U	8 U		1 U	6.4 U		1 UJ	4.6 U	
LWG0107R003TSSPWBC00		1 UJ	7.5 U		1.1 U	9.6 U		1 U	13 U		1 U	8 U		4.2 N	6.4 U		1 UJ	4.6 U	
LWG0107R006TSCAWBC00		1 U	7.5 U		1 U	9.6 U		1 U	13 U		1.5 NJ	8 U		1.9 N	6.4 U		1 UJ	4.6 U	
LWG0107R006TSSPWBC00		1.1 UJ	7.5 U		1 U	9.6 U		1 U	13 U		1.8 NJ	8 U		7.8 NJ	6.4 U	20	2.5 NJ	4.6 U	
LWG0107R009TSLSWBC00		20 U	7.5 U		20 U	9.6 U		20 U	13 U		20 U	8 U		20 U	6.4 U		20 U	4.6 U	
LWG0107R009TSNPWBC00		19 U	7.5 U		19 U	9.6 U		19 U	13 U		19 U	8 U		19 U	6.4 U		19 UJ	4.6 U	
LWG0107R009TSSBWBC10		4 U	7.5 U		4 U	9.6 U		4.9 U	13 U		4.1 U	8 U		11 NJ	6.4 U	53	4 U	4.6 U	
LWG0108R001TSSPWBC00		4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 U	4.6 U	
LWG0108R001TSSPWBC00-DUP <sup>a</sup>			7.5 U			9.6 U			13 U			8 U			6.4 U			4.6 U	
LWG0108R003TSSPWBC00		4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 U	4.6 U	



Table A1. Pesticide Concentrations by GC/ECD and by GC/MS with Ion Trap

Sample Identifier	Chemical Name		Endrin ketone			gamma-Hexachlorocyclohexane			Heptachlor			Heptachlor epoxide			Hexachlorobenzene			Hexachlorobutadiene		
	Analytical Method		SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD
LWG0108R010TSLSWBC00			4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 U	4.6 U	
LWG0108R010TSPMWBC00			1 U	7.5 U		1 U	9.6 U		1 U	13 U		1 U	8 U		5.7 N	6.4 U		1 U	4.6 U	
LWG0108R010TSSBWBC30			10 U	7.5 U		10 U	9.6 U		10 U	13 U		10 U	8 U		10 U	6.4 U		10 U	4.6 U	
LWG0109R001TSSPWBC00			4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 U	4.6 U	
LWG0109R006TSLSWBC00			4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 U	4.6 U	
LWG0109R006TSPNPWBC00			10 U	7.5 U		10 U	9.6 U		10 U	13 U		10 U	8 U		10 U	6.4 U		10 U	4.6 U	
LWG0109R006TSPMWBC00			1 U	7.5 U		2.2 U	9.6 U		1.4 U	13 U		1 U	8 U		5.7 N	6.4 U		1 U	4.6 U	
LWG0109R006TSSBWBC00			4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4.2 N	6.4 U		4 U	4.6 U	
LWG01FZ0306TSCPFLC10			4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 U	4.6 U	
LWG01FZ0306TSCPFLC30			4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 U	4.6 U	
LWG01FZ0306TSCPWBC20			20 U	7.5 U		20 U	9.6 U		20 U	13 U		20 U	8 U		20 U	6.4 U		20 U	4.6 U	
LWG01FZ0306TSCPWBC30			1 U	7.5 U		1.7 U	9.6 U		1 U	13 U		1 U	8 U		2.1 N	6.4 U		2.2 N	4.6 U	
LWG01FZ0609TSBBFLC20			20 U	7.5 U		20 U	9.6 U		20 U	13 U		20 U	8 U		20 U	6.4 U		20 U	4.6 U	
LWG01FZ0609TSBBFLC30			4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4 U	4.6 U	
LWG01FZ0609TSBBWBC10			20 U	7.5 U		20 U	9.6 U		20 U	13 U		20 U	8 U		20 U	6.4 U		20 U	4.6 U	
LWG01FZ0609TSBCWBC20			1 U	7.5 U		1 U	9.6 U		1 U	13 U		1 U	8 U		5.7 N	6.4 U		1 U	4.6 U	
LWG01FZ0609TSCPFLC10			20 U	7.5 U		20 U	9.6 U		20 U	13 U		20 U	8 U		140	120	15	20 U	4.6 U	
LWG01FZ0609TSCPFLC20			4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4.2 N	6.4 U		4 U	4.6 U	
LWG01FZ0609TSCPFLC30			9.8 U	7.5 U		9.8 U	9.6 U		9.8 U	13 U		9.8 U	8 U		9.8 U	6.4 U		9.8 U	4.6 U	
LWG01FZ0609TSCPWBC10			4 U	7.5 U		4 U	9.6 U		4 U	13 U		4 U	8 U		4 U	6.4 U		4.9 N	4.6 U	
LWG01FZ0609TSCPWBC20			4 U	7.5 U		4.6 N	9.6 U		4 U	13 U		4 U	8 U		5.1 N	6.4 U		4 U	4.6 U	
LWG01FZ0609TSCPWBC30			9.9 U	7.5 U		9.9 U	9.6 U		9.9 U	13 U		9.9 U	8 U		9.9 U	6.4 U		9.9 U	4.6 U	

Table A1. Pesticide Concentrations by GC/ECD and by GC/MS with Ion Trap

Sample Identifier	Chemical Name Analytical Method	Hexachloroethane			Methoxychlor			Mirex			Oxychlorodane			trans-Chlordane			trans-Nonachlor		
		SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD	SW8081A	SW8270C	RPD
LWG0107R009TSSBWBBC20		4 UJ	13 U		4 U	50 U		4 U	6.2 U		4 U	32 U		4 U	8.4 U		5 NJ	11 U	
LWG0107R009TSSBWBBC30		4 UJ	13 U		4 U	50 U		4 U	6.2 U		4 U	32 U		4 U	8.4 U		6.6 U	11 U	
LWG0108R010TSSBWBBC10		20 U	13 U		20 U	50 U		20 U	6.2 U		20 U	32 U		36 U	8.4 U		20 U	11 U	
LWG0108R010TSSBWBBC20		34 U	13 U		20 U	50 U		20 U	6.2 U		20 U	32 U		47 U	8.4 U		20 U	11 U	
LWG0108R032TSSBWBBC00		4 UJ	13 U		4.1 U	50 U		4 U	6.2 U		4 U	32 U		4 U	8.4 U		21 NJ	11 U	63
LWG0102R001TSSPWBC00		4 UJ	13 U		4 U	4.8 U		4 U	6.2 U		4 U	32 U		4 U	8.4 U		8.2 U	11 U	
LWG0102R015TSSPWBC00		4 UJ	13 U		7.5 U	4.8 U		4 U	6.2 U		4.6 U	32 U		69 U	8.4 U		9 U	11 U	
LWG0103R014TSLSWBC10		6.5 NJ	13 U		6.8 U	4.8 U		4 U	6.2 U		4 U	32 U		34 U	8.4 U		9.4 U	11 U	
LWG0103R014TSNPWBC10		9.9 UJ	13 U		9.9 U	4.8 U		9.9 U	6.2 U		9.9 U	32 U		9.9 U	8.4 U		18 NJ	11 U	48.28
LWG0103R014TSNPWBC20		5.9 UJ	13 U		4.8 U	4.8 U		4 U	6.2 U		4 U	32 U		4 U	8.4 U		16 NJ	11 U	37
LWG0103R014TSPMWBC00		3.7 NJ	13 U		1.4 U	4.8 U		1 U	6.2 U		1 U	32 U		1 U	8.4 U		5.4 NJ	11 U	
LWG0103R014TSSBWBBC00		4 UJ	13 U		6 N	4.8 U	22	4 U	6.2 U		4 U	32 U		21 U	8.4 U		29 NJ	11 U	90
LWG0103R034TSSPWBC00		4 UJ	13 U		4 U	4.8 U		4 U	6.2 U		4 U	32 U		4 U	8.4 U		4 U	11 U	
LWG0104R023TSSBWBBC10		4 UJ	13 U		9.9 NJ	4.8 U	69	4 U	6.2 U		4 UJ	32 U		18 U	8.4 U		32 NJ	11 U	98
LWG0104R023TSSBWBBC20		4 UJ	13 U		5.4 NJ	4.8 U	12	4 U	6.2 U		4 U	32 U		4 U	8.4 U		15 NJ	11 U	31
LWG0104R023TSSBWBBC30		1 UJ	13 U		2.4 N	4.8 U		1 UJ	6.2 U		1 U	32 U		1 UJ	8.4 U		14 NJ	11 U	24
LWG0105R001TSSPWBC00		1 UJ	13 U		1.3 N	4.8 U		1 U	6.2 U		1 U	32 U		1.8 U	8.4 U		5.5 NJ	11 U	
LWG0105R006TSNPWBC00		4 UJ	13 U		5.4 NJ	17 J	-104	4 U	6.2 U		4 U	32 U		4 U	8.4 U		21 NJ	11 U	63
LWG0105R006TSPMWBC00		2.6 NJ	13 U		1.6 NJ	4.8 U		1 U	6.2 U		1 U	32 U		1 U	8.4 U		7.6 NJ	11 U	
LWG0105R006TSSBWBBC00		1 UJ	13 U		6.2 N	4.8 U	25	1 UJ	6.2 U		3.3 NJ	32 U		1 UJ	8.4 U		14 NJ	11 U	24
LWG0106R002TSSPWBC10		4 UJ	13 U		4 U	4.8 U		4 UJ	6.2 U		4 UJ	32 U		4 U	8.4 U		4 UJ	11 U	
LWG0106R002TSSPWBC20		27 UJ	13 U		20 U	4.8 U		20 U	6.2 U		20 U	32 U		20 U	8.4 U		20 U	11 U	
LWG0106R004TSSPWBC00		4 UJ	13 U		4 U	4.8 U		4 UJ	6.2 U		4 UJ	32 U		4 U	8.4 U		5.3 NJ	11 U	
LWG0106R024TSSBWBBC00		1 UJ	13 U		6.3 NJ	4.8 U	27	1 UJ	6.2 U		1 U	32 U		1 UJ	8.4 U		11 NJ	11 U	
LWG0107R003TSSPWBC00		1 UJ	13 U		3 NJ	4.8 U		1 U	6.2 U		1 U	32 U		2.9 U	8.4 U		2.6 NJ	11 U	
LWG0107R006TSCAWBC00		2.5 NJ	13 U		1 UJ	4.8 U		1 U	6.2 U		1 U	32 U		1 U	8.4 U		1 U	11 U	
LWG0107R006TSSPWBC00		1 UJ	13 U		5.6 NJ	4.8 U	15	3.7 U	6.2 U		1 U	32 U		1.2 U	8.4 U		5 U	11 U	
LWG0107R009TSLSWBC00		20 UJ	13 U		20 U	4.8 U		20 U	6.2 U		20 U	32 U		20 U	8.4 U		20 U	11 U	
LWG0107R009TSNPWBC00		19 UJ	13 U		19 U	4.8 U		19 U	6.2 U		19 U	32 U		19 U	8.4 U		19 U	11 U	
LWG0107R009TSSBWBBC10		4 UJ	13 U		4 U	4.8 U		4 U	6.2 U		4 U	32 U		4 U	8.4 U		16 NJ	11 U	37
LWG0108R001TSSPWBC00		4 UJ	13 U		4 U	4.8 U		30 UJ	6.2 U		4 UJ	32 U		4 U	8.4 U		4 UJ	11 U	
LWG0108R001TSSPWBC00-DUP*			13 U			4.8 U			6.2 U			32 U			8.4 U			11 U	
LWG0108R003TSSPWBC00		4 U	13 U		7.7 NJ	4.8 U	46	4 U	6.2 U		4 U	32 U		4 U	8.4 U		4 U	11 U	



Table A1. Pesticide Concentrations by GC/ECD and by GC/MS with Ion Trap

Sample Identifier	Chemical Name Analytical Method	Hexachloroethane			Methoxychlor			Mirex			Oxychlorodane			trans-Chlordane			trans-Nonachlor		
		SW8081A µg/kg	SW8270C µg/kg	RPD	SW8081A µg/kg	SW8270C µg/kg	RPD	SW8081A µg/kg	SW8270C µg/kg	RPD	SW8081A µg/kg	SW8270C µg/kg	RPD	SW8081A µg/kg	SW8270C µg/kg	RPD	SW8081A µg/kg	SW8270C µg/kg	RPD
LWG0108R010TSLSWBC00		5.7 NJ	13 U		8.4 NJ	4.8 U	55	4 U	6.2 U		4 U	32 U		4 U	8.4 U		4 U	11 U	
LWG0108R010TSPMWBC00		1 UJ	13 U		1 U	4.8 UJ		1.2 U	6.2 UJ		1 U	32 U		2.8 U	8.4 UJ		3.6 U	11 UJ	
LWG0108R010TSSBWBC30		10 U	13 U		10 U	4.8 U		10 U	6.2 U		10 U	32 U		10 U	8.4 U		10 U	11 U	
LWG0109R001TSSPWBC00		4 UJ	13 U		4 U	4.8 U		4 UJ	6.2 U		4 UJ	32 U		4 U	8.4 U		5 NJ	11 U	
LWG0109R006TSLSWBC00		4 UJ	13 U		4 U	4.8 U		4 U	6.2 U		4 U	32 U		4 U	8.4 U		15 NJ	11 U	31
LWG0109R006TSPWBC00		10 UJ	13 U		10 U	4.8 U		10 U	6.2 U		10 U	32 U		10 U	8.4 U		20 NJ	11 U	58
LWG0109R006TSPMWBC00		1 UJ	13 U		1.1 U	4.8 U		1 U	6.2 U		1 U	32 U		5.6 U	8.4 U		12 NJ	11 U	9
LWG0109R006TSSBWBC00		4 UJ	13 U		4.6 U	4.8 U		4 U	6.2 U		4 U	32 U		4 U	8.4 U		11 NJ	11 U	
LWG01FZ0306TSCPFLC10		4 UJ	13 U		4 U	4.8 U		87 UJ	6.2 U		4 U	32 U		4 U	8.4 U		16 NJ	11 U	37
LWG01FZ0306TSCPFLC30		4 UJ	13 U		4.8 U	4.8 U		4 U	6.2 U		4 U	32 U		4 U	8.4 U		6.3 U	11 U	
LWG01FZ0306TSCPWBC20		20 U	13 U		28 U	4.8 U		20 U	6.2 U		20 U	32 U		36 U	8.4 U		20 U	11 U	
LWG01FZ0306TSCPWBC30		2.2 NJ	13 U		2.6 N	4.8 U		1 UJ	6.2 U		1 U	32 U		1 UJ	8.4 U		8.6 N	11 U	
LWG01FZ0609TSBBFLC20		36 UJ	13 U		20 U	4.8 U		20 U	6.2 U		20 U	32 U		20 U	8.4 U		20 U	11 U	
LWG01FZ0609TSBBFLC30		4 UJ	13 U		4 U	4.8 U		4 U	6.2 U		4 U	32 U		4 U	8.4 U		4 U	11 U	
LWG01FZ0609TSBBWBC10		20 UJ	13 U		20 U	4.8 U		20 U	6.2 U		20 U	32 U		20 U	8.4 U		20 U	11 U	
LWG01FZ0609TSBCWBC20		1 UJ	13 U		1.9 U	4.8 U		1 U	6.2 U		1 U	32 U		1.4 U	8.4 U		2.2 U	11 U	
LWG01FZ0609TSCPFLC10		20 UJ	13 U		20 U	4.8 U		20 UJ	6.2 U		20 U	32 U		20 U	8.4 U		20 U	11 U	
LWG01FZ0609TSCPFLC20		4 UJ	13 U		4 U	4.8 U		4 U	6.2 U		4 U	32 U		4 U	8.4 U		4 U	11 U	
LWG01FZ0609TSCPFLC30		15 UJ	13 U		9.8 U	4.8 U		9.8 U	6.2 U		9.8 U	32 U		9.8 U	8.4 U		9.8 U	11 U	
LWG01FZ0609TSCPWBC10		4.5 NJ	13 U		4 U	4.8 U		4 U	6.2 U		4 U	32 U		4 U	8.4 U		4.8 U	11 U	
LWG01FZ0609TSCPWBC20		5.2 NJ	13 U		6.1 U	4.8 U		4 U	6.2 U		4 U	32 U		13 NJ	8.4 U	43	9.4 NJ	11 U	
LWG01FZ0609TSCPWBC30		9.9 U	13 U		9.9 U	4.8 U		9.9 U	6.2 U		9.9 U	32 U		9.9 U	8.4 U		9.9 U	11 U	

Results are provided on a whole weight basis.

Results provided in bold font are recommended for inclusion in the database. When both results are in bold, the final value will be the average of the two results.

\* This sample is a laboratory duplicate of sample LWG0108R001TSSPWBC00. The results for 4,4'-DDE and 4,4'-DDT for this sample will be averaged with the result for sample LWG0108R001TSSPWBC00.

ECD - electron capture detection

GC - gas chromatography

MS - mass spectrometry

RPD - relative percent difference

SW8081A - EPA method 8081A (GC/ECD)

SW8270C - EPA method 8270C (GC/MS) with ion trap

µg/kg - micrograms per kilogram

J - concentration of the associated result is estimated

N - the analyte is tentatively identified; the result may be a false positive

NJ - the analyte is tentatively identified and the concentration of the associated result is estimated

U - result is undetected at the detection limit shown

UJ - result is undetected at an estimated detection limit

Table A2. Pesticide Concentrations and Qualifiers for Samples Analyzed Only by GC/ECD

Sample ID	Chemical Name Analytical Method	Lipids PSEP percent	Sum of 9 Aroclors Calculated µg/kg	2,4'-DDD SW8081A µg/kg	2,4'-DDE SW8081A µg/kg	2,4'-DDT SW8081A µg/kg	4,4'-DDD SW8081A µg/kg	4,4'-DDE SW8081A µg/kg	4,4'-DDT SW8081A µg/kg	Aldrin SW8081A µg/kg	alpha- Hexachlorocyclo hexane SW8081A µg/kg
LWG0102R001TSCRWBC00		0.45	21	1 U	1 UJ	7.6 NJ	1 U	2.9 N	1.1 U	1 U	1 U
LWG0102R015TSCRWBC00		0.93	28	1 U	1 UJ	9.5 NJ	1 U	4.1	1 U	1 U	1 U
LWG0103R001TSCRWBC00		0.85	5.7 U	1 U	1 UJ	2.2 N	1 U	4.8	1 U	1 U	1 U
LWG0103R001TSSPWBC00		6	144	1.1 U	1.4 UJ	8.6 NJ	5.2 NJ	19 U	16 J	1.8 U	1 U
LWG0103R002TSCRWBC00		1.1	5.2 U	1 U	1 UJ	2.1 NJ	1 U	3.8	1 U	1 U	1 U
LWG0103R002TSSPWBC10		4.4	121	1.4 U	1.2 UJ	8.4 NJ	6.7 N	21 U	19	1.6 U	1 U
LWG0103R002TSSPWBC20		3.4	170	1.2 U	1.4 U	9.7 NJ	7.2 N	34 U	37	1 U	1 U
LWG0103R003TSCRWBC00		0.81	8.5 U	1 U	1 UJ	3.5 NJ	1 U	3.5 N	3.4 NJ	1 U	1 U
LWG0103R004TSCRWBC00		0.9	7 U	1 U	1 UJ	2.9 J	1 U	3.7 N	2.3 NJ	1 U	1 U
LWG0103R004TSSPWBC10		5.5	324	2.4 U	1.4 U	30	5.7 N	20 UJ	54	1.6 U	1 U
LWG0103R004TSSPWBC20		4.8	305	2.9 U	1.7 U	27 J	8.3 N	22 NJ	50	1 U	1 U
LWG0103R005TSCRWBC00		0.7	280	1 U	1 UJ	6.1 UJ	1 U	3.5 J	3.1 U	1 U	1 U
LWG0103R005TSSPWBC00		2.4	360	2.8 U	1 U	34 NJ	7.7 N	25 NJ	75	1 U	1 U
LWG0103R014TSLSWBC20		8.2	350	7.8 U	4 U	14 NJ	31 J	93	32 J	4 U	4 U
LWG0103R014TSSBFLC00		0.9	60	1.2 U	1 U	4.6 J	4.1 J	25	8.3	1 U	1 U
LWG0103R032TSCRWBC00		0.68	4.5 U	1 UJ	1 UJ	2.1 NJ	1 U	3.4	1.5 N	1 U	1 U
LWG0103R032TSSPWBC00		4.7	172	1.2 U	1.6 U	7.4 NJ	7.3 N	18 NJ	23 J	1.1 U	1 U
LWG0104R002TSCRWBC00		0.9	5 U	1 U	1 UJ	1.9 NJ	1 U	4	1 U	1 U	1 U
LWG0104R002TSSPWBC00		4.7	156	12 U	1.1 U	9 NJ	5.6 J	16 NJ	26 J	1 U	1 U
LWG0104R003TSCRWBC00		1.1	4 U	1 U	3.3 NJ	5.5 U	1.2 NJ	3.9	9.5	1 U	1 U
LWG0104R003TSSPWBC00		4.1	196	1.3 U	1 U	9.8 NJ	5.3 N	14 NJ	21 J	1.1 U	1 U
LWG0104R004TSCRWBC10		0.75	2 U	1 U	1 UJ	2.1 N	1 U	6.9	1 U	1 U	1 U
LWG0104R004TSCRWBC20		0.33	1.7 U	1 U	1 UJ	1 U	1 U	2.1	1 U	1 U	1 U
LWG0104R004TSSPWBC00		3.9	123	2.1 U	1.2 U	5.4 NJ	12 J	32 NJ	26 J	1.1 U	1 U
LWG0105R001TSCRWBC00		0.79	4 U	1 U	1 UJ	1.7 NJ	1 U	5.2	1 U	1 U	1 U
LWG0105R003TSCRWBC00		1.2	27	1 U	1.4 NJ	2 U	1 U	6.6	1 U	1 U	1 U
LWG0105R006TSLSWBC00		8.1	95	16 NJ	1 U	9.3 NJ	20	79	27	1 U	1 U
LWG0105R006TSSBFLC00		1.1	46	1.1 U	1 U	2.9 NJ	4.2 J	14	6.6	1 U	1 U
LWG0105R020TSSPWBC00		4.7	132	1.5 U	1.8 U	4.3 U	11 J	27 U	22 J	1.8 U	1 U
LWG0106R001TSCRWBC00		1	2.6 U	1 U	1 UJ	1.2 N	1 U	4.6	1.1 U	1 U	1 U
LWG0106R001TSSPWBC00		5.5	62	2.1 NJ	1.9 U	7.7 NJ	16 J	29 NJ	27 J	1 U	1 U
LWG0106R002TSCAWBC00		1	77	2.6 N	1.1 U	3.9 U	2.2 N	7.5 N	8.3 U	1 U	1 U
LWG0106R004TSCRWBC10		0.57	5.8 U	1 U	1 UJ	1.6 N	2.9 J	8.8	1.5 N	1 U	1 U
LWG0106R004TSCRWBC20		0.16	2.6 U	1 U	1 UJ	1.1 NJ	9.6 NJ	3.3	1 U	1 U	1 U
LWG0106R024TSSBFLC00		0.81	39	1.4 NJ	1 U	2 NJ	5	12	5.6	1 U	1 U
LWG0106R031TSCRWBC00		0.47	4.2 U	1 U	1 NJ	1.4 NJ	1 U	3.2	1.6 NJ	1 U	1 U
LWG0107R003TSCAWBC00		1.7	62	14 J	2.5 NJ	20	30	26	49	1.1 U	1 U
LWG0107R003TSCRWBC00		0.62	39	2 UJ	2 U	3.5 NJ	3.1 J	15 J	14 J	2 U	2 U



Table A2. Pesticide Concentrations and Qualifiers for Samples Analyzed Only by GC/ECD

Sample ID	Chemical Name Analytical Method	Lipids PSEP percent	Sum of 9 Aroclors Calculated µg/kg	2,4'-DDD SW8081A µg/kg	2,4'-DDE SW8081A µg/kg	2,4'-DDT SW8081A µg/kg	4,4'-DDD SW8081A µg/kg	4,4'-DDE SW8081A µg/kg	4,4'-DDT SW8081A µg/kg	Aldrin SW8081A µg/kg	alpha- Hexachlorocyclo hexane SW8081A µg/kg
LWG0107R004TSCRWBC00		0.98	3.5 U	1 U	1 UJ	1.5 NJ	1 U	6.4	1 U	1 U	1 U
LWG0107R006TSCRWBC00		0.63	45	4.3 NJ	1 U	2.6 N	17 NJ	51	10	1 U	1 U
LWG0108R001TSCRWBC00		1.3	59	1 U	1 U	6.6 NJ	1 UJ	6.3 J	4.1 UJ	1 U	1 U
LWG0108R002TSCRWBC00		0.75	16	1 U	1 U	2.9 NJ	1 UJ	3 J	1 UJ	1 U	1 U
LWG0108R002TSSPWBC00		2.9	157	1.2 U	1 UJ	10 NJ	4.6 NJ	18 U	21 J	1 U	1 U
LWG0108R003TSCRWBC00		1	43	1 U	1 U	1.8 U	1 UJ	3.4 NJ	2.4 UJ	1 U	1 U
LWG0108R010TSNPWBC00		5.8	670	9.8 U	9.8 U	21 U	17 NJ	82	53 J	9.8 U	9.8 U
LWG0108R032TSSBFLC00		0.96	93	1.1 U	1 U	5.2 NJ	2.7 J	16	10	1 U	1 U
LWG0109R001TSCRWBC10		0.51	46	1 U	1 U	1.4 U	1 UJ	1.6 J	2.9 UJ	1 U	1 U
LWG0109R001TSCRWBC20		0.71	49	1 U	1 U	1.8 U	1 UJ	1.9 NJ	2.9 UJ	1 U	1 U
LWG0109R002TSCRWBC00		0.94	110	1 U	1 U	2.2 U	1 UJ	2.5 J	4.7 UJ	1 U	1 U
LWG0109R002TSSPWBC00		4.3	670	9.6 U	9.6 U	81 NJ	9.6 U	11 U	81	9.6 U	9.6 U
LWG0109R006TSSBFLC00		0.32	72	1 U	1 U	3.1 NJ	1.9 N	13	6.2 J	1 U	1 U
LWG01FZ0306TSBBFLC10		0.93	53	1.1 NJ	1 UJ	2.6 N	2.1 J	11	5.1 J	1 U	1 U
LWG01FZ0306TSBBFLC20		1.1	37	1 U	1 U	1.7 N	2.7 J	9.9 J	3.9 J	1 U	1 U
LWG01FZ0306TSBBFLC30		1.3	56	1 U	1 U	2.5 J	3.8 J	15 J	4.6 J	1 U	1 U
LWG01FZ0306TSBBWBC10		2	67	1.6 U	1 UJ	3.3 N	6.9 J	32	5.3 J	1 U	1 U
LWG01FZ0306TSBBWBC20		2.3	90	2.2 U	1.6 UJ	8.1 NJ	9 NJ	70	15 N	1 U	1 U
LWG01FZ0306TSBBWBC30		2.4	125	1.9 U	1 UJ	14 N	7.4 J	42 J	24	1 U	1 U
LWG01FZ0306TSBCFLC10		1.8	22.2	1 U	1 U	1 U	1.8 J	5.5	1.5 J	1 U	1 U
LWG01FZ0306TSBCFLC20		1.6	22.6	1 U	1 U	1 U	2.4 J	6.5	1.5 J	1 U	1 U
LWG01FZ0306TSBCWBC10		3.7	85	3.1 U	1 U	4.7 NJ	7.9 J	38	8.6 J	1 U	1 U
LWG01FZ0306TSBCWBC20		3.5	90	3.7 U	1.1 U	5 NJ	11 J	37 J	10 J	1 UJ	1 U
LWG01FZ0306TSCPFLC20		3.4	350	9.4 U	4 U	24 N	23 NJ	87 J	39 NJ	4 U	4 U
LWG01FZ0306TSCPWBC10		7.1	300	19 NJ	1 U	23 NJ	27 J	81 J	24 J	1 U	1 U
LWG01FZ0609TSBBFLC10		0.96	117	1.4 NJ	1 U	3.1 NJ	1.4 N	6.6 J	8.4 J	1 U	1 U
LWG01FZ0609TSBBWBC20		2.6	130	3.4 U	1.3 UJ	8.1 NJ	12	53 NJ	25	1 U	1 U
LWG01FZ0609TSBBWBC30		3.8	314	12 NJ	4 U	12 NJ	13	58	46	4 U	4 U
LWG01FZ0609TSBCFLC10		0.99	32	1 U	1 U	1.1 NJ	2.7 J	7.8	2.1 J	1 U	1 U
LWG01FZ0609TSBCFLC20		1.2	19.6	1 U	1 U	1.1 NJ	2 N	7.1	2.3 NJ	1 U	1 U
LWG01FZ0609TSBCWBC10		6.5	109	2 U	1.1 U	6.6 NJ	11 J	67	15 J	1.3 U	1.4 NJ
LWG1A02R102TSSCWBC00		2.2	30	1 U	1 U	1.7 NJ	4.6 N	20	4.4 N	1 U	1 U
LWG1A02R112TSSCWBC00		3.3	100	1.3 U	1 U	5.6 N	5.2 N	24	7 N	1 U	1 U
LWG1A02R113TSSCWBC00		3	32	1 U	1 U	1.8 NJ	4 J	19	4.9 NJ	1 U	1 U
LWG1A03R118TSSCWBC00		2.2	54	1 U	1 U	2.9 NJ	4.2 J	19	6.4 J	1 U	1 U
LWG1A03R125TSSCWBC00		3.6	58	1 U	1 U	3.2 NJ	6.3 J	21	7.6 J	1 U	1 U
LWG1A04R126TSSCWBC00		3.1	61	1.4 U	1 U	3.3 J	8.1 J	24	7.4 J	1 U	1 U

Table A2. Pesticide Concentrations and Qualifiers for Samples Analyzed Only by GC/ECD

Sample ID	Chemical Name Analytical Method	beta- Hexachlorocyclo hexane		delta- Hexachlorocyclo hexane		Dieldrin	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	gamma- Hexachlorocyclo hexane
		beta-Endosulfan SW8081A	SW8081A	cis-Nonachlor SW8081A	SW8081A	SW8081A	SW8081A	SW8081A	SW8081A	SW8081A	SW8081A
		µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
LWG0102R001TSCRWBC00		1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG0102R015TSCRWBC00		1 U	1 U	1 UJ	1 U	1 U	1 U	1.8 NJ	1 U	1 U	1 U
LWG0103R001TSCRWBC00		1 N	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG0103R001TSSPWBC00		1 U	4.3 NJ	3.6 UJ	1 UJ	4 NJ	1.3 NJ	1.1 U	1.3 UJ	1 UJ	2.6 NJ
LWG0103R002TSCRWBC00		1.4 N	1 U	1 UJ	1 U	1 U	1 U	1.3 NJ	1 U	1 U	1 U
LWG0103R002TSSPWBC10		1.1 U	4.1 NJ	4.9 UJ	1 NJ	2.8 NJ	1 U	1.4 U	1.3 UJ	1 UJ	1.7 NJ
LWG0103R002TSSPWBC20		1 U	6.2 NJ	5.1 U	1 U	4.6 N	1 U	1.2 U	1.3 UJ	1 UJ	1.3 NJ
LWG0103R003TSCRWBC00		1.1 N	1 U	1 UJ	1 U	1 U	1 U	1.1 N	1 U	1 U	1 U
LWG0103R004TSCRWBC00		3.1 J	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG0103R004TSSPWBC10		1 U	4.5 NJ	3.5 U	1 U	15 NJ	1.2 NJ	2.9 U	3.6 UJ	1 UJ	3.1 NJ
LWG0103R004TSSPWBC20		1.1 U	2.9 NJ	6.3 U	1 U	15 NJ	1 UJ	2.5 U	3.4 UJ	1 UJ	2.5 NJ
LWG0103R005TSCRWBC00		1.6 N	1 U	1 UJ	1 U	1 U	1 U	2.8 NJ	1.2 U	1 U	1 U
LWG0103R005TSSPWBC00		3.1 U	1 UJ	6.4 U	1 U	19 NJ	1 U	2.2 U	4 UJ	1 UJ	1 U
LWG0103R014TSLSWBC20		4 U	4.2 U	17 U	4 U	5.1 U	4 U	4 U	4 U	4 U	4.5 NJ
LWG0103R014TSSBFLC00		1 U	4.5 N	2.9 U	1 U	3.3 NJ	1 U	1 U	2 NJ	1 U	1 U
LWG0103R032TSCRWBC00		1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG0103R032TSSPWBC00		1 U	4.1 NJ	5.1 U	1 U	3.2 NJ	1 U	1 U	1.2 UJ	1 UJ	1.7 N
LWG0104R002TSCRWBC00		1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
LWG0104R002TSSPWBC00		3.6 U	3.8 NJ	4.6 U	1 U	5.9 N	1 U	1 U	1.6 UJ	1 UJ	1.5 NJ
LWG0104R003TSCRWBC00		1.6 N	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG0104R003TSSPWBC00		1 U	2.5 NJ	4.1 U	1 U	7.1 NJ	1 U	1.1 U	1.3 UJ	1 UJ	1 U
LWG0104R004TSCRWBC10		1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG0104R004TSCRWBC20		1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG0104R004TSSPWBC00		1 U	3.4 NJ	8.4 U	1 U	2.6 NJ	1 U	1 U	1 UJ	1 UJ	1.2 NJ
LWG0105R001TSCRWBC00		1.7 NJ	1 U	1 UJ	2.8 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG0105R003TSCRWBC00		1.3 N	1 U	1 UJ	1 U	1 U	1 U	1.2 N	1 U	1 U	1 U
LWG0105R006TSLSWBC00		1.2 U	3.3 UJ	11 U	1 U	1 U	1.3 U	1 U	2 U	1 U	3.5 U
LWG0105R006TSSBFLC00		1 U	1 U	2.9 U	1 U	1 U	1 U	1 U	1.5 NJ	1 U	1 U
LWG0105R020TSSPWBC00		1 U	3.9 NJ	7.8 U	1 U	2.8 N	1 U	1.1 U	1 UJ	1 UJ	1.7 NJ
LWG0106R001TSCRWBC00		2.1 J	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG0106R001TSSPWBC00		1 UJ	5.3 NJ	11 U	1.6 NJ	3.4 J	1 U	1.2 U	1.4 UJ	1 UJ	2.7 NJ
LWG0106R002TSCAWBC00		1 U	1.2 NJ	1.2 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U
LWG0106R004TSCRWBC10		1 U	1 U	1.4 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG0106R004TSCRWBC20		1 U	1 U	1.7 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG0106R024TSSBFLC00		1 U	1 U	2.4 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U
LWG0106R031TSCRWBC00		1.3 N	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG0107R003TSCAWBC00		1 U	1 UJ	12 U	1 U	1 U	1 UJ	1 U	0.39 J	1 U	1 U
LWG0107R003TSCRWBC00		2 UJ	2 UJ	2.2 U	2 U	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 U



Table A2. Pesticide Concentrations and Qualifiers for Samples Analyzed Only by GC/ECD

Sample ID	Chemical Name Analytical Method	beta- Hexachlorocyclo			delta- Hexachlorocyclo			Endosulfan sulfate SW8081A	Endrin SW8081A	Endrin aldehyde SW8081A	Endrin ketone SW8081A	gamma- Hexachlorocyclo
		beta-Endosulfan SW8081A	hexane SW8081A	cis-Nonachlor SW8081A	hexane SW8081A	Dieldrin SW8081A	hexane SW8081A					
		µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
LWG0107R004TSCRWBC00		2.2 J	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG0107R006TSCRWBC00		1 U	1 UJ	2.3 U	1 U	1 U	1 U	1.3 U	1 U	1 U	1 U	1 U
LWG0108R001TSCRWBC00		1 UJ	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
LWG0108R002TSCRWBC00		1 UJ	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
LWG0108R002TSSPWBC00		1 U	2 NJ	3.3 UJ	1 UJ	3.4 NJ	1 UJ	1.3 U	1.5 UJ	1 UJ	1.1 NJ	1.1 NJ
LWG0108R003TSCRWBC00		1.8 UJ	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
LWG0108R010TSNPWBC00		9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U
LWG0108R032TSSBFLC00		1 U	1 U	1.8 U	1 U	1.4 NJ	1 U	1 U	1 UJ	1 U	1 U	1 U
LWG0109R001TSCRWBC10		1 UJ	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
LWG0109R001TSCRWBC20		1.1 UJ	1 UJ	1.4 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
LWG0109R002TSCRWBC00		1 UJ	1 UJ	1.8 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
LWG0109R002TSSPWBC00		9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
LWG0109R006TSSBFLC00		1 U	1 U	1.3 U	1 U	1 NJ	1 U	1 U	1 UJ	1 U	1 U	1 U
LWG01FZ0306TSBBFLC10		1 U	1 UJ	1.5 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
LWG01FZ0306TSBBFLC20		1 U	1 U	1.6 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
LWG01FZ0306TSBBFLC30		1 U	1.4 U	2 U	1 U	2.1 NJ	1 U	1 U	1 UJ	1 U	1 U	1 U
LWG01FZ0306TSBBWBC10		2.3 NJ	1 U	3 UJ	1 U	1.2 NJ	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U
LWG01FZ0306TSBBWBC20		8.6 NJ	1.9 U	11 UJ	1 U	2.1 U	1 U	1 U	1.7 UJ	1 UJ	1.4 N	1.4 N
LWG01FZ0306TSBBWBC30		1 U	2.3 U	5.5 UJ	1 U	2.6 NJ	1 U	1.2 U	3.7 UJ	1 UJ	1.5 N	1.5 N
LWG01FZ0306TSBCFLC10		1 U	1 U	1.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG01FZ0306TSBCFLC20		1 U	1 U	1.6 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG01FZ0306TSBCWBC10		1 U	2.3 UJ	5.8 U	1 U	1.9 U	1.1 NJ	1 U	1.1 U	1 U	1.6 U	1.6 U
LWG01FZ0306TSBCWBC20		1 U	1.5 UJ	6.9 U	1 U	1.8 U	1 UJ	1 U	1.4 U	1 U	1.5 U	1.5 U
LWG01FZ0306TSCPFCLC20		4 UJ	4 UJ	17 U	4 U	4 UJ	4 UJ	4 UJ	4 UJ	4 UJ	4 UJ	4 UJ
LWG01FZ0306TSCPWBC10		1 UJ	1.5 UJ	17 U	1 U	1 UJ	1 UJ	1 UJ	2 UJ	1 UJ	1 UJ	1 U
LWG01FZ0609TSBBFLC10		1 U	1 UJ	1.1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
LWG01FZ0609TSBBWBC20		5 U	2.3 U	8.7 UJ	1 U	2.1 U	1 U	1 U	1.1 UJ	1 UJ	1.9 N	1.9 N
LWG01FZ0609TSBBWBC30		4 U	6.8 U	8.8 UJ	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
LWG01FZ0609TSBCFLC10		1 U	1 U	1.6 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG01FZ0609TSBCFLC20		1 U	1 U	1.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG01FZ0609TSBCWBC10		1.3 U	3.8 U	7.3 U	2.3 NJ	2.5 NJ	1 U	1.3 U	1 UJ	1 U	1 U	1 U
LWG1A02R102TSSCWBC00		4.3 N	1 U	2.1 U	1 U	1.5 U	1 U	1 U	1 UJ	1 U	1 U	1 U
LWG1A02R112TSSCWBC00		1.3 U	1 U	3.5 U	1 U	2.7 U	1 U	1 U	1 UJ	1 U	1 U	1 U
LWG1A02R113TSSCWBC00		1.8 N	1.2 U	2.1 U	1 U	1.7 U	1 U	1 U	1 UJ	1 U	1 U	1 U
LWG1A03R118TSSCWBC00		2.4 N	1 U	2.9 U	1 U	2.1 N	1 U	1 U	1 UJ	1 U	1 U	1 U
LWG1A03R125TSSCWBC00		3.1 NJ	1 U	3.5 U	1 U	2.6 N	1 U	1 U	1 UJ	1 U	1 U	1 U
LWG1A04R126TSSCWBC00		3.3 N	1 U	3.4 U	1 U	2.7 U	1 U	1 U	1 UJ	1 U	1 U	1 U

Table A2. Pesticide Concentrations and Qualifiers for Samples Analyzed Only by GC/ECD

Sample ID	Chemical Name Analytical Method	Heptachlor SW8081A µg/kg	Heptachlor epoxide SW8081A µg/kg	Hexachloro benzene SW8081A µg/kg	Hexachloro butadiene SW8081A µg/kg	Hexachloroethane SW8081A µg/kg	Methoxychlor SW8081A µg/kg	Mirex SW8081A µg/kg	Oxychlorthane SW8081A µg/kg	trans-Chlordane SW8081A µg/kg	trans-Nonachlor SW8081A µg/kg
LWG0102R001TSCRWBC00		1 U	1 U	1 U	1 UJ	1.3 NJ	1 U	1 UJ	1 UJ	1.1 NJ	1 UJ
LWG0102R015TSCRWBC00		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1.3 NJ	1 UJ
LWG0103R001TSCRWBC00		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 U	1 UJ
LWG0103R001TSSPWBC00		1.3 U	3.2 NJ	5.8 NJ	1.6 NJ	2.5 NJ	1.2 NJ	1 U	1 U	1.5 U	5.5 NJ
LWG0103R002TSCRWBC00		1 U	1 U	1 U	1 UJ	3.6 NJ	1 U	1 UJ	1 UJ	1 U	1 UJ
LWG0103R002TSSPWBC10		1 U	1.1 U	3.6 N	1 UJ	1 UJ	1.8 NJ	1 U	1 U	4.4 NJ	5 NJ
LWG0103R002TSSPWBC20		1 U	1 U	3.2 N	1 UJ	1 UJ	1.4 N	1 U	1 U	1 U	6.5 NJ
LWG0103R003TSCRWBC00		1 U	1 U	1 U	1.2 UJ	1 UJ	1 U	1 UJ	1 UJ	1 U	1 UJ
LWG0103R004TSCRWBC00		1 U	1 U	1 U	1 UJ	3.3 NJ	1 U	1 UJ	1 UJ	1 U	1 UJ
LWG0103R004TSSPWBC10		1 U	2	5.5 NJ	1.4 NJ	1.5 NJ	2.8 N	1.1 U	1.9 U	1 U	3.1 U
LWG0103R004TSSPWBC20		1 U	2 NJ	4.6 NJ	1 UJ	1 UJ	2.9 N	1.2 U	1.3 U	2.1 U	3.5 U
LWG0103R005TSCRWBC00		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 N	1 UJ
LWG0103R005TSSPWBC00		1 U	1 U	1.5 N	1 UJ	1 UJ	1.1 U	1 U	1 U	1 U	3.7 U
LWG0103R014TSLSWBC20		4 U	4 U	4 U	4 U	4.8 NJ	4 U	4 U	4 U	4 U	9.6 NJ
LWG0103R014TSSBFLC00		1 U	1 U	1.3 U	1 UJ	1 UJ	1 U	1 U	1 U	2.4 U	4.1 NJ
LWG0103R032TSCRWBC00		1 U	1 U	1 U	1 UJ	1.2 NJ	1 U	1 UJ	1 UJ	1 U	1 UJ
LWG0103R032TSSPWBC00		1 U	1 U	4.3 NJ	1 U	1 UJ	3.2 NJ	1 U	1 U	2.5 U	5.6 NJ
LWG0104R002TSCRWBC00		1 U	1 U	1 U	1 UJ	2.5 NJ	1 U	1 UJ	1 UJ	1 U	1 UJ
LWG0104R002TSSPWBC00		1 U	1 U	4 NJ	1 UJ	1 UJ	1 U	1 U	1 U	1.7 U	5.2 NJ
LWG0104R003TSCRWBC00		1 U	1 U	1 U	1 UJ	1 NJ	1 U	1 UJ	1 UJ	1 U	1 UJ
LWG0104R003TSSPWBC00		1 U	1 U	3.2 NJ	1 UJ	1 UJ	7.6 N	1 U	1 U	1.6 U	6.1 NJ
LWG0104R004TSCRWBC10		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 UJ	1 UJ	2.7 NJ	1 UJ
LWG0104R004TSCRWBC20		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 U	1 UJ
LWG0104R004TSSPWBC00		1 U	1 U	4 NJ	1 U	1 UJ	1.3 NJ	1 U	1 U	1 U	4.8 N
LWG0105R001TSCRWBC00		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1.9 NJ	1 UJ
LWG0105R003TSCRWBC00		1 U	1 U	1 U	1 UJ	3.8 N	1 U	1 UJ	1 UJ	1 U	1 UJ
LWG0105R006TSLSWBC00		1 U	1 U	2.7 NJ	1.1 UJ	2.6 UJ	2.5 U	1 U	2.3 N	1 U	6.3 NJ
LWG0105R006TSSBFLC00		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1.4 U	2.4 U
LWG0105R020TSSPWBC00		1 U	1 U	4.5 NJ	1 UJ	1 UJ	1.5 NJ	1 U	1 U	3.6 U	4.8 NJ
LWG0106R001TSCRWBC00		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 U	1 UJ
LWG0106R001TSSPWBC00		1.2 U	1.4 U	6.6 NJ	2 J	1 UJ	1.7 NJ	1 U	1 U	3.2 U	5 NJ
LWG0106R002TSCAWBC00		1 U	2.1 N	1.4 U	1 UJ	2.7 NJ	1.6 UJ	1 U	1 U	1.8 NJ	2.7 NJ
LWG0106R004TSCRWBC10		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 U	1 UJ
LWG0106R004TSCRWBC20		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 U	1 UJ
LWG0106R024TSSBFLC00		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1.8 NJ
LWG0106R031TSCRWBC00		1 U	1 U	1 U	1 UJ	1.3 NJ	1 U	1 UJ	1 UJ	1 U	1 UJ
LWG0107R003TSCAWBC00		1 U	1.3 NJ	1 U	1 UJ	2.6 NJ	1 UJ	1 U	1 U	1.1 NJ	1 U
LWG0107R003TSCRWBC00		2 U	2 U	2 U	2 UJ	2 UJ	2 U	2 UJ	2 U	2 UJ	2 UJ



Table A2. Pesticide Concentrations and Qualifiers for Samples Analyzed Only by GC/ECD

Sample ID	Chemical Name Analytical Method	Heptachlor SW8081A µg/kg	Heptachlor epoxide SW8081A µg/kg	Hexachloro benzene SW8081A µg/kg	Hexachloro butadiene SW8081A µg/kg	Hexachloroethane SW8081A µg/kg	Methoxychlor SW8081A µg/kg	Mirex SW8081A µg/kg	Oxychlorthane SW8081A µg/kg	trans-Chlordane SW8081A µg/kg	trans-Nonachlor SW8081A µg/kg
LWG0107R004TSCRWBC00		1 U	1 U	1 U	1 UJ	3 NJ	1 U	1 UJ	1 UJ	1 U	1 UJ
LWG0107R006TSCRWBC00		1 U	1 U	1 U	1 UJ	2.1 NJ	1 U	1 U	1 U	1 U	1 U
LWG0108R001TSCRWBC00		1 U	1 U	1 U	1 UJ	1.3 NJ	1 U	1 UJ	1 U	1 UJ	1 U
LWG0108R002TSCRWBC00		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U
LWG0108R002TSSPWBC00		1 U	1 U	3.1 NJ	1 UJ	2.1 NJ	2.3 NJ	1 U	1 U	1.6 U	5.8 NJ
LWG0108R003TSCRWBC00		1 U	1 U	1 U	1 UJ	1.5 NJ	1 U	1 UJ	1 U	1 UJ	1 U
LWG0108R010TSNPWBC00		9.8 U	9.8 U	9.8 U	9.8 UJ	9.8 UJ	10 U	9.8 U	9.8 U	9.8 U	14 U
LWG0108R032TSSBFLC00		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	3 NJ
LWG0109R001TSCRWBC10		1 U	1 U	1 U	1 UJ	1.1 NJ	1 U	1 UJ	1 U	1 UJ	1 UJ
LWG0109R001TSCRWBC20		1 U	1 U	1 U	1 UJ	1.2 UJ	1 U	1 UJ	1 U	1 UJ	1 U
LWG0109R002TSCRWBC00		1 U	1 U	1 U	1 UJ	1 NJ	1 U	1 UJ	1 U	1 UJ	1 U
LWG0109R002TSSPWBC00		9.6 U	9.6 U	9.6 U	9.6 UJ	9.6 UJ	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
LWG0109R006TSSBFLC00		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U
LWG01FZ0306TSBBFLC10		1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1.3 N
LWG01FZ0306TSBBFLC20		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1.2 NJ
LWG01FZ0306TSBBFLC30		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1.6 NJ
LWG01FZ0306TSBBWBC10		1 U	1 U	1 U	1 UJ	1 UJ	1.1 NJ	1 U	1 U	1 U	1.8 NJ
LWG01FZ0306TSBBWBC20		1 U	1 U	1.6 NJ	1 UJ	1 UJ	1 UJ	1 U	1 U	25	15
LWG01FZ0306TSBBWBC30		1 U	1 U	1.1 NJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	3.7 NJ
LWG01FZ0306TSBCFLC10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG01FZ0306TSBCFLC20		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.1 NJ
LWG01FZ0306TSBCWBC10		1.8 N	1 U	1.1 U	1.4 NJ	1 UJ	1 U	1 U	2.3 N	1 U	3.2 NJ
LWG01FZ0306TSBCWBC20		1 U	1 UJ	1 U	1.3 NJ	1 UJ	1 U	1 U	2.2 NJ	1 U	3.5 NJ
LWG01FZ0306TSCPFCLC20		4 U	4 U	4 U	4 UJ	4 UJ	7.2 NJ	4 UJ	4 U	4 U	4 U
LWG01FZ0306TSCPWBC10		1.1 U	1 U	2.2 NJ	1 UJ	2 UJ	4.2 N	1 UJ	1.1 NJ	1 UJ	10 NJ
LWG01FZ0609TSBBFLC10		1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1.6 NJ
LWG01FZ0609TSBBWBC20		1 U	1 U	1.4 N	1 UJ	2 NJ	1.1 U	1 U	1 U	1 U	5.6 NJ
LWG01FZ0609TSBBWBC30		4 U	4 U	4 U	4 U	4 UJ	4 U	4 UJ	4 UJ	4 U	4 UJ
LWG01FZ0609TSBCFLC10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
LWG01FZ0609TSBCFLC20		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U
LWG01FZ0609TSBCWBC10		1.3 U	1 U	8.1 N	2.3 NJ	1 UJ	2.5 U	1 U	1 U	3.7 N	1.8 U
LWG1A02R102TSSCWBC00		1 U	1 U	1 U	1 UJ	1 UJ	1.2 U	1 U	1 U	1 U	1.6 NJ
LWG1A02R112TSSCWBC00		1 U	1 U	1.3 N	1 UJ	1 UJ	19 U	1 U	1 U	1 U	3.8 NJ
LWG1A02R113TSSCWBC00		1 U	1 U	1 U	1 UJ	1 UJ	19 U	1 U	1 U	1 U	1.8 NJ
LWG1A03R118TSSCWBC00		1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	2 NJ	2.5 NJ
LWG1A03R125TSSCWBC00		1 U	1 U	1.4 NJ	1 UJ	1 UJ	1 U	1 U	1 U	2.9 NJ	3.3 NJ
LWG1A04R126TSSCWBC00		1 U	1 U	1.9 NJ	1 UJ	1 UJ	1 U	1 U	1 U	2.9 NJ	3.3 NJ

µg/kg - micrograms per kilogram

J - concentration of the associated result is estimated

N - the analyte is tentatively identified; the result may be a false positive

NJ - the analyte is tentatively identified and the concentration of the associated result is estimated

U - result is undetected at the detection limit shown

UJ - result is undetected at an estimated detection limit